

# OFFICIAL GAZETTE

## GOVERNMENT OF GOA, DAMAN AND DIU

### EXTRAORDINARY

No. 2

#### GOVERNMENT OF GOA, DAMAN AND DIU

Industries and Labour Department

##### Notification

26/1/82-ILD (II)

Whereas certain draft rules which the Government of Goa, Daman and Diu proposes to make in exercise of the powers conferred by section 29 of the Indian Boilers Act, 1923 (Central Act 5 of 1923), were published as required under sub-section (1) of section 31 of the said Act at pages 145 to 149 of the Official Gazette, Series I, No. 16, dated 15-7-83 under Notification No. 26/1/82-ILD, dated 7-7-83 of the Industries and Labour Department, Government of Goa, Daman and Diu, Secretariat, Panaji (hereinafter called the 'said Notification'), inviting objections and suggestions from persons likely to be affected thereby, till the expiry of the period of one month from the date of publication of the said Notification in the Official Gazette;

And whereas the said Gazette was made available to the public on 15-7-1983.

And whereas no objections, suggestions and representations have been received from the public on the said proposal by the Government within the stipulated period.

Now, therefore, in exercise of the powers conferred by section 29 of the Indian Boilers Act, 1923 (Central Act 5 of 1923), and all other powers enabling it in this behalf, the Government of Goa, Daman and Diu hereby makes the following Rules, namely:—

#### CHAPTER I

##### Preliminary

**1. Short title and commencement.**—(1) These rules may be called the Goa, Daman and Diu Economiser Rules, 1983.

(2) They shall come into force at once.

**2. Definitions.**—In these rules, unless the context otherwise requires,—

(a) "Act" means the Indian Boilers Act, 1923;

(b) "Regulations" mean the Indian Boiler Regulations, 1950;

(c) "Section" means a section of the Act.

**3. Payment of fees.**—All fees payable under the Act and these rules shall be deposited by the payer in a Government Treasury in the Union territory of Goa, Daman and Diu.

**4. Registers.**—(1) The Chief Inspector shall keep in his office—

(a) a register in Form AE of all economisers registered in the Union territory;

(b) the registration books and Memorandum of Inspection books in respect of all economisers entered in such registers;

(c) a register of appeals;

(d) a register of accidents; and

(e) a register of fees received for registration and for the issue of renewal certificates.

(2) The register maintained under clause (a) of sub-rule (1) shall consist of two parts. In part I shall be entered the economisers registered in the Union territory of Goa, Daman and Diu and in Part II shall be entered the economisers transferred from another State.

**5. Inspection at special times.**—No examination of an economiser shall be made by an Inspector for the purpose of registering or issuing a certificate for an economiser on a Sunday or on a gazetted public holiday or between the hours of sunset and sunrise without the specific orders of the Chief Inspector in each case. In such cases, an extra fee equal to the usual fee for the registration or inspec-

tion of the economiser, as the case may be, shall be charged and half of the extra fee paid to the Inspector.

## CHAPTER II

### Procedure for Registration and Inspection

**6. Receipt of application.**—An application for registration under sub-section (1) of section 7 shall be made to the Inspector and shall be accompanied by a receipt for the payment of the fee prescribed in regulation 533 of the regulations.

**7. Procedure on transfer.**—Whenever an economiser is transferred to this Union territory from any other State/Union territory the owner shall report such transfer to the Chief Inspector as required by clause (b) of section 6 and apply for the registration of the transfer; the economiser shall not be used until registration has been effected and communicated to the owner of the economiser. No fee shall be charged for recording such transfer.

**8. Entry of transferred economiser unit in register.**—(1) On receipt of the Registration and Memorandum of Inspection books in respect of such transferred economiser, the Chief Inspector shall enter the economiser unit under its original number in Part II of the register in Form AE.

(2) When parts of two or more units are assembled to form one unit, the original number shall be cancelled and the newly built up unit shall be given a fresh number.

**9. Note of transferred and dismantled economisers.**—Whenever an economiser or part of an economiser has been transferred to another State or broken up, the fact shall be noted in the register. In the case of an economiser which has been condemned, the Registration Book and the Memorandum of Inspection Book shall contain an entry to that effect.

**10. Entries in certificates.**—In addition to the entries required to be made under regulation 530 in a certificate for an economiser, the Inspector shall state in the remarks column his requirements, if any, with regard to hydraulic test, removal of lagging brick work or other concealing part for the next inspection to enable the owner to have the same properly prepared at that time. He shall also state in the same place his requirements regarding the repair or renewal of any part that may be considered fit only for the period of the certificate.

In the repairs column shall be entered the year of repair and description of the repair effected. Only important repairs shall be noted.

**11. Engraving of registry number.**—Paper slips of the proper size bearing the registry number allotted for the economiser shall be supplied by the Chief Inspector. The engraving of the registry number shall be made as prescribed in regulation 534.

**12. Issue of certificate and provisional order.**—In cases in which the Inspector is empowered to issue a certificate under section 8 without further reference, the certificate shall ordinarily be issued within 48 hours of the completion of the inspection. Where

the Inspector proposes to issue a provisional order under section 9 pending the issue or refusal of the certificate, he shall satisfy himself that the economiser is fit to be worked at the minimum pressure and for the period entered in the provisional order. The fact of the issue of a provisional order shall be reported immediately to the Chief Inspector.

**13. Forms of provisional orders and certificates.**—Provisional orders and certificates are prescribed in Forms X and XI, respectively, of the Regulations. The period specified in any provisional order or certificate shall begin on the day on which the thorough inspection or hydraulic test is completed. Where a certificate supersedes a provisional order during the period of its currency, the period of the certificate shall be retrospective and shall begin from the same date as that of the provisional order.

**14. Duplicate certificate.**—A duplicate of a certificate under section 7 or renewed certificate under section 8 or a provisional order granted under section 9 which, for the time being is in force, shall be granted by the Chief Inspector on an application by the owner of the economiser, if the Chief Inspector is satisfied that the duplicate is required for a bonafide purpose and a fee of Rs. 5/- (Rupees five only) is paid.

**15. Registration fees.**—Fees for registration shall be such as are prescribed in regulation 533 of the Regulations.

**16. Inspection fees for renewal of certificates.**—Fees for inspection of economiser for renewal of its certificate shall be levied in accordance with the following Schedule:—

#### SCHEDULE

Economiser rating	Amount
Not exceeding 46.5 sq. mts.	Rs. 40/-
Exceeding 46.5 sq. mts. but not exceeding 93 sq. mts.	Rs. 50/-
Exceeding 93 sq. mts. but not exceeding 139.5 sq. mts.	Rs. 60/-
Exceeding 139.5 sq. mts. but not exceeding 196 sq. mts.	Rs. 70/-
Exceeding 196 sq. mts. but not exceeding 232.5 sq. mts.	Rs. 80/-
Exceeding 232.5 sq. mts. but not exceeding 279 sq. mts.	Rs. 90/-
Exceeding 279 sq. mts. but not exceeding 334 sq. mts.	Rs. 100/-
Exceeding 334 sq. mts. but not exceeding 372 sq. mts.	Rs. 110/-
Exceeding 372 sq. mts. but not exceeding 418.5 sq. mts.	Rs. 120/-
Exceeding 418.5 sq. mts. but not exceeding 465 sq. mts.	Rs. 130/-
Exceeding 465 sq. mts. but not exceeding 558 sq. mts.	Rs. 140/-
Exceeding 558 sq. mts. but not exceeding 650.5 sq. mts.	Rs. 150/-
Exceeding 650.5 sq. mts. but not exceeding 744 sq. mts.	Rs. 160/-
Exceeding 744 sq. mts. but not exceeding 836.5 sq. mts.	Rs. 170/-
Exceeding 836.5 sq. mts. but not exceeding 930 sq. mts.	Rs. 180/-
For an economiser rating exceeding 930 sq. mts. an additional fee of Rs. 10/- shall be charged for every 186 sq. mts. or part thereof in excess of 930 sq. mts.	

Provided that when any owner is willing to accept a renewed certificate for less than 24 months in order to approximate the date of the annual inspection to the date on which other economisers in the locality are inspected, a certificate for such shorter period as may be necessary for such approximation may be granted at a reduced fee to be calculated at the rate of one twenty-fourth of the ordinary fees for each full month, section of a month not being reckoned for such calculation.

**17. Special fee for inspection out of season.** — (1) For inspections carried out on application made before the date of expiry of a certificate, no travelling and halting charges of the Inspector and staff shall be leviable.

(2) In cases where the owner requires the inspection at any date prior to the expiry of the certificate, the Chief Inspector may, in addition to the inspection fee, charge the travelling and halting charges from the owner of the economiser. If an owner applies for inspection after the expiry of his certificate he shall be liable to pay the travelling allowance and halting allowance of the Inspector at the discretion of the Chief Inspector.

(3) If the inspection is carried out at the request of the owner on a date other than the one specified by the Inspector, to suit the convenience of the owner, the travelling charges of the Inspector shall be realised from the owner.

**18. Refund of fees.** — Any fee paid in excess and any fee paid for an inspection which, for any reason (such reason not due to any fault or omission on the part of the owner of the economiser) has not been made, shall be refunded or adjusted, if an application therefor is made within one year from the date of payment.

### CHAPTER III

#### Procedure for Inspection

**19. Internal inspection of economiser chamber.** — Detailed instructions for the inspection of economisers are contained in Chapter XI of the Regulations. The following general procedure at inspection shall be observed, namely:

(a) At a thorough inspection of an economiser, the Inspector shall, wherever possible, have either the steel casing doors opened or the brick-work completely removed on the outside of the economiser chamber to enable him to make a thorough examination of the external surfaces of the tubes. But before doing so, he shall satisfy himself that proper provisions have been made to isolate the economiser on the gas side as well as on the water connections of the boiler and from any other working economiser.

(b) Should the Inspector find that the economiser has not been disconnected on the feed line or is not sufficiently sealed on the gas side or is unreasonably or not properly cleaned or scaled, he shall decline to proceed with the inspection and report the facts to the Chief Inspector for orders under sub-section (2) of section 14.

(c) When an economiser chamber is of such a size or its construction is such that the Inspector

cannot go inside it, reasonable provision shall then be made for the external examination of the principal parts. If for any reason the Inspector cannot examine it, he shall report the facts to the Chief Inspector for orders.

**20. Preparation for hydraulic test.** — (a) The test of all mountings, subject to the water pressure, shall be in place and shut tight or blank flanged. The relief wall shall, either be secured or removed, and the chest opening blank flanged. The attachment for the Inspector's pressure gauge and the nipple connecting the Inspector's test pump hose shall be in order. All caps shall be properly fitted and tightened up. The economiser shall be completely filled with water, care being taken to allow all air to escape and, if possible, a preliminary test not exceeding the working pressure of the economiser shall be taken before the Inspector visits to test the tightness of the joint. When an economiser is hydraulically tested it shall be offered entirely bare.

(b) Hydraulic tests of economisers shall be made after the inspection. The test pressure to be applied to economisers at such subsequent examinations shall be from one and a quarter to one and a half times the working pressure of the economiser.

Provided that the Chief Inspector may, at his discretion, waive the requirement of hydraulic test of an economiser if he deems fit.

**21. External inspection of economiser.** — (a) After the economiser has been cleaned, the Inspector shall make a thorough examination so far as its construction permits. The external condition of the tubes shall be carefully noted for wasting especially at the feed inlet end and all accessible tubes shall be calipered. The internal surfaces of cast iron tubes shall be calipered as far as possible and shall be closely observed for graphitic wasting. In the event of any failure, these shall be broken up for scrutiny, so that the general internal condition of the other tubes may be estimated.

(b) Where tubes or other parts are wasted, the strength shall be recalculated.

(c) The scraper gear shall be examined to note if any parts are missing, if the length of travel is adequate and if the scrapers are correctly adjusted.

(d) All cap bolts are to be inspected, also the condition and position of the dampers and baffles.

(e) The record of each inspection and calculation shall be entered in the Memorandum of Inspection Book.

**22. Casual inspections.** — The Inspector shall note if the economiser is working satisfactorily and especially in accordance with the regulation 531 of the Regulations. Particular note shall be taken of the satisfactory working of the scrapers and of the water temperature to see that the maximum outlet water temperature of the economiser shall be at least 40° F below the saturated steam temperature in the boiler.

**23. Proposal for reduction of pressure.** — When the Inspector decides that an economiser in one or more of its parts is no longer fit for the pressure approved for it, he shall without delay, report his proposals for reducing the pressure to the Chief Inspector.

**24. Repairs to economisers.** — (1) No pressure parts in a cast iron economiser shall be permitted to be repaired by welding.

(2) Castings shall not be repaired or welded without the specific sanction of the Inspecting Officer. If required, the castings shall be suitably reheat-treated to remove internal stresses. Should a defect impair the strength of the casting, repair by welding or otherwise shall not be permitted.

**25. Entries in Memorandum of Inspection Books.** —

(1) The Inspector shall, after an inspection, make the necessary entries in the Memorandum of Inspection Book for the economiser and submit the Book to the Chief Inspector.

(2) Inspection notes shall briefly state the following facts, namely: —

(a) The extent to which economisers were cleared of brick-work, lagging or concealing parts;

(b) The general condition of the economisers; and

(c) Parts requiring attention or repair and if special preparation is required at the next inspection.

(3) The Inspector shall also note in the Memorandum of Inspection Book all casual visits for inspection of feed pipes, visits for inspection of repairs, enquiry into accidents and other like matters.

**26. Arranging for inspections.** — In arranging for inspection and hydraulic test, a written notice of not less than 30 days shall be given to the owner concerned.

**27. Fee to cover inspection and test.** — A fee paid for the inspection of an economiser shall cover thorough inspection and hydraulic test subject to the provision of sub-section (2) of section 14.

**28. A second fee in default.** — A second fee shall be leviable for re-inspection in any case where the inspection of an economiser is begun, but owing to the fault or neglect of the person-in-charge is not completed within the period of six months from the date of commencement of the inspection:

Provided that no extra fee shall be levied except with the sanction of the Chief Inspector.

**29. Fee for copy of Registration Book.** — The fee for copy of Registration Book, excluding inspection notes and calculations, shall be rupees ten.

#### CHAPTER IV

##### Accidents

**30. Investigation of accidents.** — On receipt of a report of an accident to an economiser or feed pipe under section 18 the Inspector shall with the least possible delay proceed to the place to investigate the accident. If the report is received by the Chief Inspector, he shall forward it at once to the Inspector within whose jurisdiction the accident has occurred for necessary action.

**31. Procedure during enquiry.** — The Inspector shall make a careful examination of the damaged parts and shall take such measurements and make such sketches for the purpose of his report, as he may deem necessary. He shall enquire into the circumstances attending the accident and note the time of its occurrence, its nature and extent, any injury caused to persons and damage done to the property. The report shall be in Form CE and shall be sent forthwith to the Chief Inspector. If the Chief Inspector is satisfied with the investigation, he will record the facts in the register of accidents and enter a brief account of the accident in the Registration Book. If, however, the accident is of a serious nature and in all cases in which an explosion has occurred, the Chief Inspector, if he deems fit after receipt of the Inspector's report, may proceed to investigate the accident personally.

**32. Power to hold enquiry in writing.** — Inspectors are authorised to take written statements of witnesses and all persons immediately concerned with the accident. In order to comply with the provisions of sub-section (2) of section 18, the Inspector shall present to the owner or person-in-charge of the economiser a series of written questions on all points that are material to the enquiry.

**33. Use of economiser after accident.** — The Inspector shall decide whether the use of the economiser may be permitted at the same or at a lower pressure without repairs or pending the completion of any repairs or alterations that he may order. In no case shall he issue a provisional order or renewed certificate, until his orders have been carried out.

**34. Reference in annual report.** — A brief account of all accidents, their causes and remedial measures taken shall be included in the Chief Inspector's annual report.

**35. Unreported accidents.** — If in the course of an inspection or at any other time, the Inspector discovers damage which comes within the definition of an accident, but which has not been reported, he shall report the facts at once to the Chief Inspector for such action as he deems fit.

#### CHAPTER V

##### Appeals

**36. Constitution of Appellate Authority.** — (1) The Appellate Authority to be constituted under section 20 shall consist of a President and six assessors appointed by the Government.

(2) The President and assessors shall hold office for such period as the Government may specify in this behalf.

**37. Qualification of President and assessors.** — (1) A person to be appointed as the President of the Appellate Authority shall be one —

- (i) who is holding or has held any judicial office not lower in rank than that of a Civil Judge of Junior Division or First Class Judicial Magistrate or any office which, in the opinion of the Government, is an equivalent office; or

- (ii) who is an advocate enrolled under the relevant statute; or  
(iii) an Attorney of a High Court.

(2) A person to be appointed as an assessor shall be a fully qualified mechanical engineer.

**38. Remuneration of assessors.**—An assessor shall be paid—

- (a) the fees as the Government may, from time to time, determine; and  
(b) the travelling expenses actually incurred by him for attending an enquiry under these rules.

**39. Attendance of assessors.**—Where a date for an appeal before the Appellate Authority has been fixed, the Chief Inspector shall under the orders of the President of the Appellate Authority, arrange for the attendance of all the assessors.

**40. Filing of appeals.**—Every appeal shall be made to the Chief Inspector in writing in English.

**41. Presentation of appeal.**—The petition of appeal accompanied by the original order, notice or report appealed against or by a certified copy thereof, or where no such order, notice or report has been made in writing, by a clear statement of the facts appealed against, the grounds of appeal and section under which the appeal is made, may be presented either personally or sent by registered post, to the Chief Inspector.

**42. Procedure before hearing.**—When the date for hearing has been fixed, the Chief Inspector shall at once issue a notice to the appellant stating the date for hearing and informing him that if he wishes to be heard in support of the appeal or to produce evidence, he shall be present, either in person or by an authorised agent, with his evidence on the date fixed. The notice shall be sent by registered post to such address as is entered in the petition of appeal.

**43. Attendance of Inspectors during hearing of appeals.**—(1) In an appeal to the Chief Inspector he shall decide whether the presence of the Inspector is necessary and shall issue orders accordingly.

(2) Under orders of the Chief Inspector, Inspectors shall attend before the Appellate Authority, during the hearing of appeals with regard to economisers under their charge.

**44. Attendance of witnesses before Appellate Authority.**—The Appellate Authority shall have power to secure the attendance of witnesses and to make local enquiries under the provisions of the Civil Procedure Code, 1908.

**45. Ex-parte decision.**—In any appeal, if the appellant is not present on the date fixed, the appeal may be decided ex-parte.

**46. Costs in appeals to Appellate Authority.**—(1) Where an appeal is dismissed, the Appellate Authority may fix the costs of the appeal which shall be payable by the appellant.

(2) In any appeal where a local inspection is required, the appellant shall deposit in advance, full costs of such inspection as determined by the President of the Appellate Authority.

## CHAPTER VI

### General

**47. The owner of an economiser shall not use or permit it to be used unless the competent person in charge of the boiler is placed in charge of such economiser.**

**48. Penalty.**—Any person contravening any of these rules shall be punishable, in the case of a first offence, with fine which may extend to two hundred and fifty rupees and in the case of any subsequent offence, with fine which may extend to one thousand rupees.

### FORM AE

Goa, Daman and Diu Economiser Inspection Department

#### Register of Economisers

(See rules 4 and 8)

Registry No.	Type of economiser	Economiser rating	Name of manufacturer	Year and place of construction
1	2	3	4	5

Date of registration	Name of owner	Place where in use	Remarks, transfers etc.
6	7	8	9

### FORM CE

(See rule 31)

Report into the investigation of the accident to Economiser No.

To

The Chief Inspector of Boilers,

Sir,

In accordance with instructions, I have held preliminary inquiry into the accident and the circumstances attending it to Economiser No. ... and now make the following reports:—

- (1) Date and place of accident
- (2) Date of investigation
- (3) Name and address of Owner(s)
- (4) Person killed and/or injured
- (5) Name of makers of Economisers or steam pipe
- (6) Age of Economiser or steam pipe
- (7) Particulars of previous repairs with dates
- (8) Nature of accident
- (9) Cause of accident
- (10) General remarks.

Inspector of Boilers.

Date:

Remarks by the Chief Inspector.

By order and in the name of the Lieutenant Governor of Goa, Daman and Diu.

S. D. Sadhale, Under Secretary (Industries and Labour).

Panaji, 15th December, 1983.

## Notification

26/1/81-ILD (1)

Whereas the draft rules of certain rules which the Government of Goa, Daman and Diu proposed to make in exercise of the powers conferred by section 29 of the Indian Boilers Act, 1923 (Central Act 5 of 1923) were published as required under sub-section (1) of section 31 of the said Act at pages 75 to 85 of the Official Gazette, Series I, No. 9 dated 2nd June, 1983 under the Notification No. 26/1/81-ILD(1), dated 6th May, 1983 of the Industries and Labour Department, Government of Goa, Daman and Diu, Secretariat, Panaji inviting suggestions and objections from all persons likely to be affected thereby, before the expiry of one month from the date of publication of the said Notification in the Official Gazette;

And whereas the said Gazette was made available to the public on 2nd June, 1983;

And whereas no objections or suggestions have been received from the public on the said draft by the Government;

Now, therefore, in exercise of the powers conferred by section 29 of the Indian Boilers Act, 1923 (Central Act 5 of 1923), and all others powers enabling in this behalf, the Government of Goa, Daman and Diu, hereby makes the following rules as required by sub-section (1) of section 31 of the said Act, namely:—

### CHAPTER I

#### Preliminary

1. **Short title and commencement.**— (a) These rules may be called the Goa, Daman and Diu Boiler Rules, 1983.

(b) They shall come into force at once.

2. **Definitions.**— In these rules, unless the context otherwise requires, —

(a) "Act" means the Indian Boilers Act, 1923 (Central Act 5 of 1923);

(b) "Appellate Authority" means the appellate authority constituted under rule 58 of these rules;

(c) "Board" means the Board constituted under section 27A of the Act;

(d) "Government" means the Government of the Union territory of Goa, Daman and Diu;

(e) "Inspection Authority" and "Inspecting Officer" shall have the respective meanings assigned to them in the Indian Boilers Regulations, 1950;

(f) "Regulation" means a regulation framed by the Board;

(g) "Rules" means the Goa, Daman and Diu Boiler Rules, 1983;

(h) "Section" means a section of the Act;

(i) "Union Territory" means the Union territory of Goa, Daman and Diu;

(j) Every reference in these rules to a boiler or boilers shall be deemed to include also a reference to an economiser or economisers respectively.

3. **Location of office.**— The Boiler Inspection Office for the whole of the Union territory shall be

located at Panaji, Goa, and shall be under the charge of the Chief Inspector of Boilers.

### CHAPTER II

#### Duties of the Chief Inspector

4. **Administrative control.**— The Chief Inspector shall work under the administrative control of the Secretary, Industries and Labour Department, Government of Goa, Daman and Diu, Panaji, and shall submit to him —

(a) an Annual Report on the administration of the Act;

(b) such other reports and returns as may be called for from time to time by the Secretary, Industries and Labour Department, Government of Goa, Daman and Diu, Panaji.

5. **Duty of general control.**— The Chief Inspector is vested with all the powers of an Inspector under the Act. His main duty, however, consists in supervising and controlling the work of the Inspectors and he should only actually inspect or examine boilers in exceptional cases, or where he considers that the work of an Inspector requires a personal check.

6. **Specific duties.**— The Chief Inspector shall —

(a) approve all drawings and plans for construction of boilers or any part thereof, steam receivers, separators and similar equipments;

(b) supervise the work of all Inspecting Officers in respect of construction of boilers or any part thereof, steam receivers, separators and similar equipments;

(c) issue certificates in Forms II and III-A of the Regulations and countersign certificates in Form III of the Regulations for boilers or any part thereof, steam pipes, steam receivers, separators and similar equipments;

(d) supervise the working of any testing laboratory set up for the testing and examination of boilers or any part thereof under construction;

(e) examine all reports regarding examination of boilers or any part thereof under construction in stages as enumerated in Appendix 'J' of the Regulations.

(2) The Chief Inspector shall further —

(a) personally check the registration particulars and calculations submitted by Inspectors for all boilers inspected for registration as prescribed in Chapter IX of the Regulations and enter under his own signature the approved working pressure and all orders required by section 7;

(b) enter under his own signature any subsequent entries required in the registration book;

(c) obtain from the State of registry, the registration book of any boiler, the transfer of which is reported under section 6(b);

(d) fix the area of jurisdiction of each Inspector;

(e) approve the programmes of all the Inspectors subordinate to him with due regard to the convenience of the owners of the boilers generally;



(f) examine and countersign the Inspectors' Memorandum of Inspection Book of each boiler after each inspection;

(g) examine and pass orders on the diaries and returns of the Inspectors;

(h) pass orders in all cases in which an Inspector proposes to increase or reduce the pressure allowed for any boiler under section 8 or to revoke, cancel or refuse to renew the certificate of a boiler after issuing due notice thereof or to order important repairs, structural alterations or renewals in a boiler under section 8;

(i) pass orders in all cases in which it is reported that after due notice the boiler has not been properly prepared for inspection;

(j) sanction prosecutions under the Act;

(k) inquire into serious accidents to boilers.

**7. Instructions to owners.** — The Chief Inspector, shall issue a set of instructions on the lines indicated in Form C appended to these rules to the owners as regards the maintenance, working and cleaning of boilers. These instructions should be kept in each boiler house.

**8. Registers to be kept.** — (1) The Chief Inspector, as an Inspecting Authority, shall keep in his office—

(a) a register of boilers and scotlings manufactured in the Union territory;

(b) a register of all tests carried out for the purpose of testing the specimens against the boilers under manufacture;

(c) a register of radiographic and non-destructive examinations carried out with the results thereof against each boiler of welded construction under manufacture;

(d) a register of approved drawings and plans of the boilers;

(e) a register of examination fees received in connection with the construction of the boilers, steam pipes or parts thereof;

(f) a schedule of stage examination of the boilers or parts thereof in accordance with the provisions laid down in Appendix 'J' of the Regulations.

(2) The Chief Inspector shall also keep in his office—

(a) a register in Form A of the rules of all boilers registered in the Union territory of the registry of which has been transferred from another State;

(b) the Registration Book and Memorandum of Inspection Book of all boilers borne on his register;

(c) a register of appeals;

(d) a register of accidents;

(e) a register of registration and inspection fees.

### CHAPTER III Inspecting Staff

**9. Appointment of inspectors and general duties of inspectors.** — (1) No person shall be appointed

as an Inspector for the purpose of the Act, unless he possesses the following qualifications, —

(a) A degree in Mechanical or Electrical Engineering of a recognised University or equivalent, with at least a year's industrial experience;

OR

(b) a diploma in Mechanical or Electrical Engineering of a recognised institution or equivalent, with about 3 years' experience in a workshop or factory of repute.

(2) The main duties of the Inspector, as laid down in the Act, are the inspection and examination of boilers, economisers, and steam pipes. Inspections shall be carried out in strict accordance with Chapter IX of the Regulations and Chapters IV and V of these rules.

**10. Inspectors to see that boilers are worked according to law.** — In addition to the inspection and examination of boilers it is the duty of Inspectors to search for unregistered or uncertificated boilers within their areas, and to see that certificated boilers are worked in accordance with the terms of their certificates and with any regulation or rule under the Act for their safe working.

**11. Inspectors to advise owners.** — At the time of inspection, Inspectors should advise the owner and the person-in-charge of the boiler, of the management and upkeep of the boiler with special reference to the amount of cleaning required in view of the quality of water used.

**12. Specific duties.** — (1) The Inspectors shall also carry out the following duties namely: —

(a) prepare a programme of inspections with regard to the convenience of owners generally in the most suitable order of places to save time and expenditure in cross journeys and submit it at such periods as may be prescribed at least 14 days before the first date fixed in the programme, to the Chief Inspector for approval to enable 10 days' notice required under sections 7 and 8 to be given to the owner;

(b) maintain a Memorandum of Inspection Book for each boiler under their charge and submit it to the Chief Inspector for examination and countersignature after each inspection;

(c) keep diary for weekly submission to the Chief Inspector showing places visited, boilers registered or inspected with fees paid thereon, variations from the programme and any other important particulars;

(d) receive applications for registration or inspection under sections 7 or 8, proposals for repairs, alterations or renewals under sections 12 and 13 and reports of accidents under section 18;

(e) inquire into accidents to boilers and steam-pipes and report to the Chief Inspector;

(f) report to the Chief Inspector cases of unreported accidents discovered at the time of inspection;

(g) submit for the orders of the Chief Inspector —

(i) the Memorandum of Inspection Books of all boilers proposed for registration under section 7;

(ii) proposals for increasing or decreasing the pressure of a boiler after inspection under section 8;

(iii) proposals for necessary repairs, structural alterations or renewals to a boiler under section 8 or 12;

(iv) proposals for revoking, cancelling or refusing to renew a certificate under section 8 or 11;

(v) report when boilers have not been properly prepared for inspection under section 14;

(vi) proposals for prosecution under the Act.

(2) As an Inspecting Officer, the Inspector shall—

(a) prepare a programme of examination with regard to the convenience of the makers generally and submit it to the Inspecting Authority for approval;

(b) maintain a schedule of such examination of boilers or parts thereof;

(c) maintain a diary of examinations carried out for monthly submission to the Inspecting Authority, showing places visited, boilers or parts thereof examined;

(d) submit to the Inspecting Authority reports on the results of the examinations carried out on boilers or parts thereof in accordance with the standards laid down in the regulations and with particular reference to variations thereof;

(e) report the results of tests carried out to materials or scantlings in his presence;

(f) maintain a record of all tests—both destructive and non-destructive—carried out by him or under his supervision;

(g) when radiographic examinations are carried out to boilers or parts thereof, give his opinion in writing to the Inspecting Authority with regard to the acceptability or otherwise of the parts examined.

**13. Inspections at special times.**—No examination of a boiler shall be made by an Inspector for the purpose of registering or issuing a certificate for a boiler on a Sunday or gazetted public holiday or between the hours of sunset and sunrise without the specific orders of the Chief Inspector in each case. In such case an extra fee equal to the usual registration or inspection fee for the boiler may be charged.

**14. Attendance during hearing of appeals.**—Under the orders of the Chief Inspector, Inspectors shall attend during the hearing of appeals with regard to boilers under their charge before the Chief Inspector or the Appellate Authority.

**15. Registers to be kept.**—Every Inspector in charge of an office shall keep—

(a) a register in Form 'A' of all registered boilers situated within his jurisdiction;

(b) a register of accidents;

(c) a register of registrations and inspection fees received.

## CHAPTER IV

### Procedure for Registration

**16. Importance of registration.**—Technical regulations for the registration of boilers and the scale of fees for registration are prescribed in Chapter IX of the Regulations. The details of measurements recorded at the time of registration constitute a permanent record for the boiler and determine the original pressure at which the boiler is allowed to work. It is accordingly essential that the work should be done with the greatest care and precision.

**17. Receipt of applications.**—Applications for registration shall be made under sub-section (1) of section 7 either to the Chief Inspector or to the Inspector having jurisdiction over the area in which the boiler is situated and shall be accompanied by a receipt for the prescribed fee. No application shall be accepted without the receipt. No boiler shall be registered if on measurement, the fee is found to be deficient until the deficit has been paid. Any excess payment will be refunded to the party but shall bear no interest.

**18. Necessity of avoiding delay.**—It is essential that no delay should occur in registration. The measurements under sub-section (3) of section 7 should ordinarily be completed and the report submitted to the Chief Inspector within seven days of the receipt of the application; in no case should the interval exceed thirty days. The Chief Inspector should issue his orders under sub-section (4) of section 7 without delay.

**19. Register of registered boilers.**—The Chief Inspector shall maintain a register of registered boilers in serial order in Form A in two parts; in Part I, the boilers originally registered in Union territory of Goa, Daman and Diu, the registered number of a boiler shall be the one immediately following the last serial number in the register. Gap number due to boilers being broken up or transferred to another State or Union territory shall not be filled up but will be marked with special code numbers. In Part II, the boilers originally registered in other States or Union territories, the entries shall be made as prescribed in rule 21. Inspectors in charge of an office shall keep a similar register for all boilers within their jurisdiction.

**20. Procedure on transfer of a boiler.**—Whenever a boiler is transferred from one State or Union territory to the Union territory of Goa, Daman and Diu, the owner shall, under section 6(b), apply to the Chief Inspector for the registration of such transfer; the boiler cannot be used until registration has been effected. The Chief Inspector shall then obtain from the State or the Union territory from which the boiler was transferred the Registration Book and Memorandum of Inspection Book of the boiler.

**21. Entry of the transferred boiler in register.**—On receipt of the Registration and Memorandum of Inspection Books, the Chief Inspector shall enter the boiler under its original number in Part II of his Register, and shall instruct the Inspector of the local area in which the boiler is situated to enter it similarly in his Register. The Registration Book and the Memorandum of Inspection Book shall be kept in the Chief Inspector's office.



**22. Note of transferred and dismantled boilers.** — Whenever a boiler has been transferred to other State or Union territory or broken up, the fact shall be recorded in the Register. In the case of a boiler that has been permanently dismantled the Registration Book and the Memorandum of Inspection Book of such boiler shall be kept in the safe custody and weeded out after expiry of 90 days.

#### CHAPTER V

##### Procedure for Inspection

**23. Internal inspection.** — Detailed instructions for the inspection of boilers are contained in Chapter IX of the Regulations. The general procedure at inspection to be observed is as under: —

(a) At a thorough inspection of a boiler, the Inspector should, whenever the size and construction of the boiler permit, go inside it and make a thorough inspection of all its internal parts. But before doing so he should satisfy himself that proper provision has been made for disconnection from any other boiler under steam.

(b) In case he finds that proper provision for disconnection has not been made or that the boiler has not been properly cleaned or scaled or that it is unreasonably hot he should decline to proceed with the inspection and shall report the facts to the Chief Inspector for his orders under sub-section (2) of section 14 of the said Act.

(c) When a boiler is of such a size or its construction is such that the Inspector cannot go inside it there must be sufficient sight holes or hand holes provided to enable him to see the principal internal parts. If any important part of a boiler is so constructed that the Inspector cannot examine it, he shall report the facts to the Chief Inspector for his orders.

**24. External inspection.** — (a) Boilers must be examined externally as well as internally; particular attention should be paid to the external parts of the boilers where in contact with seating blocks and brick works, especially when the situation is damp. Having regard to any serious defects discovered, Inspectors should take care, in order to ensure proper inspection, that boilers of which the whole of the outside cannot be readily examined, are cleared whenever they consider it necessary of any concealed covering, supports or fittings.

(b) Saddle tanks and engine fittings of locomotive type boilers should be removed for inspection of the parts underneath at the first inspection and at any reasonable period afterwards if the Inspector cannot satisfy himself. If the owners in any special case have any good reasons for not wishing to clear covered parts, the case should be submitted to the Chief Inspector for orders. The Inspector must keep in mind that he is not to certify as efficient any boiler regarding the condition of which he cannot thoroughly satisfy himself.

**25. Casual working inspections.** — At the inspection of one of a battery of boilers, the Inspector shall take the opportunity of examining the other boilers under steam with special reference to the water gauges, pressure gauges and safety valves.

**26. Proposals for reduction of pressure.** — When the Inspector decides that a boiler in one or more of its parts is no longer fit for the pressure approved for it, he shall, without delay, report his proposals for reducing the pressure to the Chief Inspector and at the same time submit his calculations for wasted parts for check and approval of pressure. With regard to pitting and wasting of shell plates, the Inspector must bear in mind that shell plates ordinarily are considerably stronger in the body of the plate, owing to being unpierced, than at the seams and consequently may become reduced in thickness to an appreciable extent in the body of the plate, i. e. elsewhere than at the seams, and still be stronger than the seams.

**27. Repairs to boilers.** — (a) Under section 12 of the Act the sanction of the Chief Inspector to all repairs proposed for boilers must be obtained beforehand.

(b) A few water tubes or smoke tubes, however, may, in an emergency, be renewed pending the sanction of the Chief Inspector but all such cases must be reported immediately to the Chief Inspector who may, if he deems fit, notify his sanction to the owner without verification of the renewals by an Inspector.

(c) Generally in repairing boilers the object to be obtained is to make up for damage or wastage by suitable compensation, either by renewal or repair of the part affected. Covering patches applied with the object of hiding defects are a source of danger and must not be passed.

(d) Welding by electric and oxy-acetylene processes may be employed in the repair of boilers, but, as the efficiency of the welding depends largely on the skill and care of the operator, each case will have to be decided on its merit.

(e) Proper attention must be paid to the annealing of welded parts. An Inspector shall, wherever possible, be present during some part at least, of the welding operations.

(f) Extensive repairs such as renewal of furnaces and plates, parts of shell, fire-boxes, grinders, etc. shall be supervised, so far as his other duties permit, by the Inspector and at such time when fireboxes and smoke tubes of locomotive type boilers are withdrawn, advantage of the opportunity shall be taken to inspect the internal parts otherwise inaccessible to close inspection.

(g) Repairs to boilers are prescribed in Chapter IX, Regulation 392 of the Regulations.

#### **28. Entries in Memorandum of Inspection Book.** —

(a) An Inspector shall, as soon as convenient after an inspection, make the necessary entries in the Memorandum of Inspection Book for the boiler and submit the book to the Chief Inspector. Care shall be taken to preserve the books and to keep them clean and tidy. Inspection notes shall briefly state the extent to which the boilers were cleared of brick-work, lagging or concealing parts; the general condition of the boiler; parts requiring attention or repair and if special preparation is required at the next inspection.

(b) Inspectors shall also note in the Memorandum of Inspection Books, all casual visits, inspections of steam pipes, visits for inspection of repairs, in-

quiry into accidents, etc. and so provide an useful record of the history of the boiler for the subsequent inspections.

(c) In making inspections it is important that the Inspector shall pay particular attention to entries made in the Memorandum of Inspection Book at previous inspections.

**29. Entries in certificates.** — (a) In addition to the entries required to be made under Regulation 389 in a certificate for a boiler the Inspector shall state in the remarks column his requirements, if any, with regard to hydraulic test, removal of lagging, brick-work or other concealing part for the next inspection to enable the owner to have the same properly prepared at that time. He shall also state in the same place his requirements regarding the repair or removal of any part that may be considered fit only for the period of the certificate.

(b) In the repairs column shall be entered the day, month and year of the repairs and description of repairs effected in clear and precise terms.

(c) The Inspector's remarks shall be brief and in the absence of any remarks on the condition of boiler, the boiler will be considered to be in good condition, unless found otherwise.

**30. Engraving of registry number.** — Paper slips of the proper size bearing the registry number allotted for a boiler will be supplied by the Chief Inspector. The slip shall be pasted on the part of the boiler pointed out by the Inspector and the device traced through with a cutting tool. The engraving shall then be completed by the removal to the prescribed depth of the metal between the traced lines.

**31. Arranging for inspections.** — In arranging for inspection particular attention shall be paid to the provisions of clause (a) of sub-rule (1) of rule 12. The notice required under sub-section (2) of section 7 and sub-section (4) of section 8 shall be sent in Form B. If a hydraulic test is necessary in addition to the ordinary inspection, sufficient notice must be given to the owner.

**32. Issue of certificates and provisional orders.** — In cases in which the Inspector is empowered to issue a certificate under section 8 without further reference, the certificate should ordinarily be issued within 48 hours from the completion of the inspection. Where he proposes to issue a provisional order, the Inspector must satisfy himself that the boiler is fit to be worked at the maximum pressure for the period of not less than 30 days continuously as entered in the provisional order. The fact of issue of a provisional order must be reported to the Chief Inspector.

**33. Provisional orders to be issued after hydraulic tests.** — (1) Provisional orders shall be issued in every case of registration after hydraulic test of boiler if the Inspector, is satisfied;

(2) The steam test may be carried out at any pre-fixed convenient time within the period of the provisional order after which if test is satisfactory, the certificate under sub-section (6) of section 7 has to be issued.

**34. Forms of provisional orders and certificates.** — Provisional orders and certificates are prescribed in Forms V and VI respectively of the Regulations.

The period specified in any provisional order or certificate shall begin on the day following that on which the enabling thorough inspection or hydraulic test is made. Where a certificate supersedes a provisional order during the period of its currency, the period of the certificate shall be retrospective and shall begin from the same time as that of the provisional order.

**35. Duplicate certificates.** — A duplicate of any certificate granted earlier under section 7 or section 8 of the Act which is at the time in force shall be granted by the Chief Inspector on the application of the owner of the boiler if the Chief Inspector is satisfied that the duplicate is required for a bona-fide purpose and the fees prescribed under rule 42 are paid.

**36. Fees for inspection.** — Fees for inspection shall be calculated on the basis of boiler rating, as prescribed in Chapter IX, Regulation 384 of the Regulations. The following fees are prescribed: —

(1) *Registration fees.* — Fees for registration and first inspection of boilers and miniature boilers shall be levied as prescribed in Regulations 385 and 621(d) respectively of the Regulations.

(2) *Inspection fees.* — Fees for renewal of certificate of boilers shall be calculated on the basis of rating and shall be levied in accordance with the following scale, namely: —

For boiler rating not exceeding 9.3 sq. mts.	Rs. 70/-
For boiler rating exceeding 9.3 sq. mts. but not exceeding 27.9 sq. mts.	Rs. 80/-
For boiler rating exceeding 27.9 sq. mts. but not exceeding 45.9 sq. mts.	Rs. 90/-
For boiler rating exceeding 45.9 sq. mts. but not exceeding 65.1 sq. mts.	Rs. 105/-
For boiler rating exceeding 65.1 sq. mts. but not exceeding 83.7 sq. mts.	Rs. 125/-
For boiler rating exceeding 83.7 sq. mts. but not exceeding 102.3 sq. mts.	Rs. 145/-
For boiler rating exceeding 102.3 sq. mts. but not exceeding 186 sq. mts.	Rs. 165/-
For boiler rating exceeding 186 sq. mts. but not exceeding 372 sq. mts.	Rs. 190/-
For boiler rating exceeding 372 sq. mts. but not exceeding 558 sq. mts.	Rs. 220/-
For boiler rating exceeding 558 sq. mts. but not exceeding 774 sq. mts.	Rs. 250/-
For boiler rating exceeding 774 sq. mts. but not exceeding 930 sq. mts.	Rs. 280/-
For boiler rating exceeding 930 sq. mts. but not exceeding 1116 sq. mts.	Rs. 320/-

For boiler rating exceeding 1116 sq. mts. but not exceeding 1302 sq. mts.	Rs. 360/-
For boiler rating exceeding 1302 sq. mts. but not exceeding 1488 sq. mts.	Rs. 400/-
For boiler rating exceeding 1488 sq. mts. but not exceeding 1674 sq. mts.	Rs. 450/-
For boiler rating exceeding 1674 sq. mts. but not exceeding 1860 sq. mts.	Rs. 500/-
For boiler rating exceeding 1860 sq. mts. but not exceeding 2046 sq. mts.	Rs. 550/-
For boiler rating exceeding 2046 sq. mts. but not exceeding 2232 sq. mts.	Rs. 600/-
For boiler rating exceeding 2232 sq. mts. but not exceeding 2418 sq. mts.	Rs. 650/-
For boiler rating exceeding 2418 sq. mts. but not exceeding 2604 sq. mts.	Rs. 700/-
For boiler rating exceeding 2604 sq. mts. but not exceeding 2790 sq. mts.	Rs. 750/-
Above 2790 sq. mts. for every 186 sq. mts. or part thereof an additional fee of Rs. 20/- shall be charged.	

Fees for ordinary inspection of a miniature boiler shall be Rs. 30/-:

Provided that when any owner is willing to accept a renewed certificate for less than twelve months in order to approximate the date of annual inspection to the date on which other boilers in the locality are inspected, a certificate for such period of less than twelve months, as may be necessary for such approximation of dates, may be granted at a reduced fee to be calculated at one twelfth of the ordinary fee for each full month, portion of a month will be reckoned as one full month.

(3) Fees for examination of pipes and plans — Fees for examination of steam, feed and blow off pipes under fabrication shall be charged in accordance with the following scales: —

(a) for pipes not exceeding 114.3 mm. ( $4\frac{1}{2}$ " OD) —

(i) up to 30 metres in length, a fee of Rs. 50/-,

(ii) for every additional length of 30 metres or part thereof, a fee of Rs. 25/-.

(b) For pipes exceeding 114.3 mm. OD ( $4\frac{1}{2}$ " OD) —

(i) up to 30 metres in length, a fee of Rs. 75/-, and

(ii) for every additional length of 30 metres or parts thereof, a fee of Rs. 50/-.

(c) The fee for examination of plans of steam, feed and blow off pipes required under sub-re-

gulation (a) of Regulation 395 of the Regulations shall be at the rate of Rs. 5/- per 30 mts. of all fittings, excepting fittings like de-superheaters, steam receivers, feed heaters and separately fired superheaters. For any fittings like de-superheaters, steam receivers and separators, the fee shall be Rs. 50/- for each such fitting.

(4) Fees for examination of boiler mountings, fittings, etc. —

(a) (i) Cast mountings and fittings —

A fee of Rs. 150/- shall be charged for examination and certification of a single lot of mountings and fittings and made from the same cast but the number of items in one such lot shall not exceed fifty.

(ii) Fabricated mounting and fittings —

A fee of Rs. 150/- shall be charged for examination and certificate of single lot of mountings and fittings not exceeding ten.

(iii) Drawings —

The charges for the examination of drawing only for the mountings and fittings to be manufactured shall be Rs. 50/- for each such drawing.

(b) Boilers and parts thereof under fabrication —

Fees for inspection of boilers and parts thereof under fabrication shall be the same as prescribed in Regulation 395-A:

Provided that the Chief Inspector may require the manufacturer or the fabricator to pay fresh fee equal to the usual inspection fee in any particular case where due to fault or neglect of the owner, the visit paid by any Inspector for examination was fruitless.

37. Fee to cover inspection and tests. — A fee paid for the inspection of a boiler shall cover thorough inspection, hydraulic test and steam test where such tests are necessary, subject to the provisions of sub-section (2) of section 14.

38. Second fee in default. — A second fee will be leviable for re-inspection in any case where the inspection of a boiler is begun, but owing to the fault or neglect of the owner or person in-charge, is not completed within a period of six months from the date of commencement of inspection.

39. Sanction of Chief Inspector to second fee. — No extra fee shall be levied except with the sanction of the Chief Inspector.

40. Special fee for inspections out of season. — For any inspection of a boiler situated at a place which is visited by an Inspector one or more times in a year for the purpose of inspecting boilers, if an owner or person in charge of a boiler fails to avail himself of the services of the Inspector during the usual period for visiting the district and applies for inspection at a time which would necessitate a special journey, the owner or person in addition to the registration or inspection fee, pay such sum into

the Government Treasury to cover the rail, conveyance and travelling allowance charges of the Inspector from the nearest Headquarters and of any Class IV servant accompanying him as the Chief Inspector may determine:

Provided that, if two or more owners apply for inspection at a time which would necessitate a special journey by the Inspector, then before the Inspector undertakes such a journey, the owners or persons in charge shall, in addition to the usual prescribed fees, pay such proportionate travelling allowance charges as would be determined by the Chief Inspector.

41. **Fee for copy of Registration Book.** — The fee for obtaining the copy of Registration Book, excluding inspection notes and calculations shall be Rs. 10/-

42. **Duplicate certificate fees.** — Fees for duplicate certificate under rule 35 shall be Rs. 5/-.

43. **Refund of fees.** — Fees paid in excess and fees paid for an inspection which for any reason not due to any fault or omission of the owner or person in charge of the boiler has not been made, shall be refunded if a refund is applied for within one year from the date of payment.

#### CHAPTER VI

##### Accidents

44. **Investigation of accidents.** — On the receipt of a report of an accident to a boiler or steam pipe under section 18, the Inspector shall with the least possible delay, proceed to the place to investigate the accident. If the report is received by the Chief Inspector, he shall forward it at once to the Inspector within whose jurisdiction the accident has occurred for necessary action.

45. **Procedure during inquiry.** — The Inspector at his inquiry shall make a careful examination of the damaged parts, and shall take such measurements and make such sketches for the purpose of his report, as he may deem necessary. He shall inquire into the circumstances attending the accident and note the time of its occurrence, its nature and extent of the injury caused to persons and the damage done to property. The report shall be in the style of the Reports of Preliminary Enquiries under the British Boiler Explosions Act, 1882 and 1890.

46. **Power to hold inquiry in writing.** — Inspectors are authorised to take the written statements of witness and other persons immediately concerned with the accident. In order to comply with the provisions of sub-section (2) of section 18 the Inspector shall present to the owner or person-in-charge of the boiler a series of written questions on all points that are material to the inquiry.

47. **Use of boiler after accident.** — The Inspector must decide whether the use of the boiler can be permitted at the same or at a lower pressure without repairs or pending the completion of any repairs or alterations that he may order. In no case should he issue a provisional order or renewal certificate until his orders have been carried out.

48. **Procedure in case of serious accident.** — The report shall be sent without delay to the Chief Inspector; if he considers that the investigation has been sufficient, he will record the facts in his Register of Accidents and enter a brief account of the accident in the Registration Book, copy being made in the Memorandum of Inspection Book. If, however, the accident is of a serious nature and in all cases in which an explosion has occurred, the Chief Inspector, shall, after receipt of the Inspector's report, proceed to investigate the accident personally or with the assistance of a member of the panel of assessors appointed under rule 59 who may be appointed for this purpose by the Commissioner. Report of such inquiries shall be recorded as indicated above.

49. **Remuneration of Assessor.** — The Assessor shall be remunerated at such rate as may be prescribed by the Government and be allowed the travelling expenses incurred by him in attending the inquiry.

50. **Reference in annual report.** — A brief account of all accidents and their causes shall be included in the Chief Inspector's annual report.

51. **Unreported accidents.** — If in the course of an inspection or at any other time the Inspector discovers damage which comes within the definition of an accident, but which has not been reported, he shall report the facts at once to the Chief Inspector for action under clause (d) of section 24.

#### CHAPTER VII

##### Appeals

52. **Filing of appeal.** — Every petition of appeal shall be made in writing within thirty days of the order/decision appealed against, and shall bear stamp of rupees ten only.

53. **Presentation of appeal.** — An appeal is to be presented either personally or by registered post to the Chief Inspector or the Appellate Authority or the Central Government, as the case may be.

54. **Form of appeal.** — The petition of appeal shall be accompanied by the original order, notice or report appealed against or by a certified copy thereof or where no such order, notice or report has been made in writing, by a clear statement of the facts appealed against, the grounds of appeal and the referring section of the Act.

55. **Fixing date for hearing.** — On receipt of an appeal the Chief Inspector shall, if the appeal is to be heard by himself, fix a date for hearing of the appeal; and if it is to be heard by the Appellate Authority, obtain a date for the hearing of the appeal from the President of the Appellate Authority. It is important that there shall be no delay in the decision of appeals, as the stoppage of a boiler is likely to put the owner thereof to great inconvenience. The decision shall ordinarily be given within 10 days from the receipt of the petition of appeal.

56. **Procedure before hearing.** — When the date for hearing has been fixed, the Chief Inspector shall issue a notice to the appellant stating the date for hearing and informing him that if he wishes to be heard in support of the appeal or to produce evidence he must be present either in person or by his duly

authorised agent with his evidence on the date fixed. The notice shall be sent by registered post to such address as shall be entered in the petition of appeal.

**57. Presence of Inspector.**—In all appeals the Chief Inspector shall decide whether the presence of the Inspector is required and accordingly shall issue orders calling upon the Inspector to be present without fail at the appointed place and time.

**58. Appellate Authority.**—For the purpose of hearing appeals under section 20, there shall be an Appellate Authority consisting of the President and six assessors, appointed by the Government.

**59. Qualifications of President and Assessors.**—  
(1) No person shall be appointed as the President of the Appellate Authority unless,—

(i) he is holding or has held any judicial office of the rank of "Civil Judge, Junior Division" or "Judicial Magistrate, First Class" or in case of a Government officer, he, in the opinion of the Government is holder of an equivalent office;

(ii) he is an advocate enrolled under the Advocate Act, 1961 with three years standing.

(2) No person shall be appointed as an assessor unless he is a Mechanical or Electrical Engineer and possesses such other qualifications as the Government may determine.

**60. Constitution of Appellate Authority.**—(1) Whenever the date for an appeal before the Appellate Authority has been fixed, the Chief Inspector shall arrange for the attendance of all the assessors.

(2) The quorum for sitting of the Appellate Authority shall be 3 members.

**61. Attendance of witnesses.**—The Appellate Authority shall have power to secure the attendance of witnesses and to make local inquiries under the provisions of the Code of Civil Procedure, 1908.

**62. Ex-parte decisions.**—If the appellant is not present on the date fixed for hearing the appeal may be decided ex-parte.

**63. Cost in appeals.**—In appeals before the Appellate Authority the President is authorised to fix the costs and recover them from the appellant in any case in which the appeal is dismissed; in all cases of appeal in which a local inspection is required by the appellant he shall deposit in advance the full costs of such inspection.

**64. Fees required for certificates granted on appeal.**—Any order on appeal authorising the registering of a boiler or the grant or renewal of a certificate shall be deemed to be subject to the payment of such fees as are prescribed by rules or regulations framed under the Act.

#### CHAPTER VIII

##### Penalty

**65. Penalty for offences.**—The owner of a boiler who operates or permits or causes the boiler to be

operated at any time in contravention of any of these rules shall be punishable under section 30.

**66. Repeal and savings.**—The Goa Boiler Rules, 1964 as in force in the whole of the District of Goa are hereby repealed from the date of coming into force of the Goa, Daman and Diu Boiler Rules, 1983:

Provided that the provisions of section 6 of the General Clauses Act, 1897 (Central Act No. X of 1897), shall be applicable as regards such repeal:

Provided further that anything done or any action taken under such repealed rules shall be deemed to have been done or taken under the corresponding provision of these rules.

#### APPENDIX

##### FORM 'A'

##### Boiler Inspection

##### Register of Boilers

(Rules 8, 15 and 19)

Registry number	Type of boiler	Boiler rating	Name of manufacturer	Year and place of construction	Date of registration	Name of owner	Place where in use	Transfers re-marks etc.
1	2	3	4	5	6	7	8	9

In Part II of the Register, Column (1) should contain registry numbers and letters.

##### FORM 'B'

Indian Boilers Act, 1923 (Central Act V of 1923)

Notice for Examination of Boiler under sections 7 and 8 (rule 31)

No.

of 19

STEAM BOILER INSPECTION OFFICE

Dated the 19

To.

...

...

Sir,

In reply to your application dated ... you are hereby informed that Boiler Registry No. ... at the above named premises will be thoroughly examined

hydraulically tested by the Government

Inspector on the ...

To enable the examination to be made, you are bound—

- to afford to the Inspector all reasonable facilities for the examination and all such information as may reasonably be required of you;
- to have the boiler properly prepared and ready for examination in the prescribed manner; and
- in the case of an application for the registration of a boiler, to provide such drawings, specifications, certificates and other particulars as may be prescribed.

Voucher No. ... in acknowledgement of Bank Receipt  
No. ... for Rs.... accompanies. Treasury



# CHIEF INSPECTOR OF STEAM BOILERS GOA, DAMAN AND DIU

(See reverse for preparation required).

(REVERSE OF FORM B)

## Preparation for Examination

See Chapter IX of the Regulations

(Regulation 376)

### (a) Preparation for Inspection.

At every examination of a boiler for the grant or renewal of a certificate, the boiler shall be empty and thoroughly clean in all its parts. All those of manholes, hand holes and sight-holes and cleaning plugs and all caps in the headers and mud-drums of water tube boilers, all firebars, bearers, front plates, bridge plates, firebridges, brick arches, oil fuel burners and mechanical stokes fittings shall be removed. All valves and cocks comprising the boiler mounting shall be opened up and taken apart and the valves or cocks ground, when necessary, before the Inspector's visit.

Provision shall, if required by the Inspector, be made for the removal of lagging or brickwork or other concealing part and for the drilling of plates and for verifying the pressure gauge and safety valve dimensions and weights. All smoke tubes, exterior of water tubes, smoke-boxes and external flues shall be swept clean.

Provision shall be made for the effective disconnection of all steam and hot water communication with any other boiler under steam as prescribed in Chapter X of the Regulations. This shall be effected either by the removal of a length of pipe from the steam and feed piping or by the insertion of substantial blank flanges. Where blank flanges are employed, they shall be inserted between the flange of the chest and the pipe attached to it. No blank flange shall be inserted between a safety valve chest and the boiler.

In the case of forced flow and forced circulation types of boilers, provision shall be made for checking that proper circulation is maintained through all sections of the circuit by the flow of water.

**NOTE:** These provisions as to effective disconnection shall extend to every case wherein a person is sent or with the assent of the owner or person in-charge goes into boiler for any purpose (see Part III of Regulation).

(Regulation 378)

### (b) Preparation for Hydraulic Test.

The chest of all mountings, subject to steam pressure shall be in place and shut tight or blankflanged. The safety valves shall either be jammed down or removed and the chest opening blank flanged. The attachment for the Inspector's test pump shall be in order. All doors shall be properly jointed and tightened up. The boiler shall be completely filled with water, care being taken to allow all air to escape and, if possible, a preliminary test not exceeding the working pressure of the boiler be taken before the Inspector's visit to test the rightness of the joints. When a boiler is hydraulically tested for the first time, it shall be entirely cleared of lagging or brickwork; at subsequent tests the lagging or brickwork or portions thereof, shall be removed if required by the Inspector/Chief Inspector.

## PREPARATION NOW REQUIRED — (a) (b)

### FORM 'C'

#### General Working of Boilers

(See rule 7)

#### Instructions to Boiler Attendants

These instructions should be frequently and carefully studied with a view to keeping in mind the precautions to be observed and the ordinary procedure to be followed in the safe working of boilers.

#### Precautions before starting the fires:

Before starting the fires in a boiler, the attendant should —

- (1) see that there is sufficient water in the boiler and that the gauge cocks are working freely;
- (2) ease safety valves or open cock on top of boiler to allow air to escape;
- (3) see that the blow-off cock is fully closed and tight;

(4) see that the safety valves and feed check valve are free and workable;

(5) note if the pressure gauge pointer is at zero;

(6) see that the feed pump is in working order.

He must not rely on the supposition that the water he has previously put in it is still in the boiler as it may have run out without the knowledge through a lead or open lock, nor can he be sure that the gauge glass shows the true water level until he has tested it. This is done in the following manner:

Shut off the lower gauge cock and empty the glass by the the drain cock; then shut the drain cock and open the gauge cock; if everything is in order, the water will then rise in the glass to the same height as before.

**Raising steam:**—In getting up steam in all types of boilers, the operation should be as gradual as circumstances will allow. Nothing turns a new boiler into an old one sooner than getting up steam too quickly. Forcing the fires when starting work is liable to cause straining of the steam and tubes of the boiler. In the case of large boilers generally steam should not be got up in less than six hours. Before getting up steam, the water level should be observed to ensure that water is at the proper heights in the glass, the pressure gauge noted and the safety valves tried to see they are free. The blow-off cock should be examined to see that it is completely shut and tight.

**Pressure gauge:**—The pressure or steam gauge should be kept in order and be in such a position as to be easily seen by the boiler attendant. There should be a plain mark on it showing the highest pressure allowed for the boiler and the dial should be kept clean so that the figures may easily be read.

**Steam pressure:**—Ordinarily, the safety valve will prevent the steam from rising much above the working pressure, but if the steam gauge shows a rapid increase of pressure as to indicate danger of exceeding the highest limit, water should be immediately fed into the boiler and the dampers partially closed in order to diminish the effect of the fire. If, however, the water has fallen so low that there is danger of an accident from this cause the fires should be withdrawn before feeding in water, the safety valves eased and if the engine is at rest it should be started so as to reduce the pressure.

The safety valves are provided to guard against over-pressure.

They should be moved by hand every day so as to prevent them from sticking. If moved only occasionally, they are liable to leak.

The valve can be rested by slowly raising it a little, and when let down, it should close perfectly tight. It should never be opened by a sudden knock or pull. If it does not close tight turn it on its seat until it fits, or when its construction does not permit this, raise it slowly a few times and let it down again, but on no account must the valve be screwed further or loaded more than what has been allowed by the Inspector.

Safety valves must never be over-loaded and spring valves should have ferrules or other provisions against the valves being screwed down too far. In case of an accident resulting from wilful overloading or otherwise the offender might be held criminally responsible at the official inquiry or inquest, besides being liable for prosecution.

**Low water safety valves:**—If there is low water safety valve, test it occasionally by lowering the water level to see that valve begins to blow at the right point. It should give warning "before" the water level has sunk too low and before damage can be done when the boiler is open, examine the floats and level and see that they are free and that they give the valve the full rise. With the ordinary type of high steam and low water safety valve the float should be down at its lowest position and the valve full open when the boiler is empty.

**The water gauge:**—These will be kept in best order by frequently blowing through. The cocks are thus kept in good working condition without leaking. Blow through the drain cock at the bottom of the gauge and shut and open the steam and water cocks every few hours. These cocks should be blown through more frequently when the water is dirty. Should either of the passage become choked, or whenever



the water in the gauge glass moves sluggishly the passage must be cleaned. This is best done with a wire. The gauge glass is so arranged that its top cock connects with the steam space and its bottom cock is below the water line. The water line will ordinarily be near the middle of the glass tube. Always test the glass water gauges thoroughly, the first thing in the morning and at the commencement of every shift. This is done by first opening drain cock and then shutting the upper cock which should give water; the upper cock should then be opened and the bottom cock closed which should give steam; during this test the drain cock should be kept open.

If water and steam do not appear in proper order, the cocks are choked and the passage should be cleaned. To lessen the risk of breaking the gauge glass, the water cock should always be re-opened after the steam cock.

Gauge glasses with a narrow white stripe running the whole length of the glass on the side next to the boiler are recommended as they show the water line more clearly especially when the water is dirty.

The boiler regulations framed by the Board require every water gauge glass to be fitted with a guard to prevent injury to the attendants. See that it is always in place and clean when there is steam in the boiler.

**Special note:**—It does not follow that there is plenty of water in the boiler because there is plenty of water in the gauge glass. The passage may be choked and empty gauge glasses are sometimes mistaken for full ones and explosions have resulted therefrom. Hence the importance of keeping the gauge cocks perfectly tight and clean and of blowing through the test cocks frequently.

A large number of accidents have been occurring due to inoperative water gauges and due to negligence of the attendant in not carefully reading the water level.

**The blow-off cock:**—The blow-off should be used daily if the water is at all dirty or sedimentary especially with locomotive type and vertical boilers, as their narrow water spaces are liable to get choked with mud, which soon hardens into a solid mass. The amount of water to be blown out depends on the size of the boiler and can be determined only from experience. When blowing out, the best result is obtained if the water has been at rest for some time (say before the engine is started) thus giving the sediment time to settle if the feed water is cleaned merely turn the cock round.

**The scum cock:**—When scum cocks are fitted, if the feed water is dirty, a little should be blown off daily; if the water is clean, merely turn the cock round. Before opening the scum cock, see that the water is at the height indicated by the water level pointer, otherwise the scumming will be ineffective. Water should be blown from the surface through the scum cock when steam is being drawn off i.e. when the engine or other machinery is working.

**Manholes and other door joints:**—When making such joints the jointing materials should never be of round sectioned packing. Care must be taken that the spigot of the door is centrally placed in the hole, as many accidents have resulted from packing being blown out between the spigot and side of hole, even the clearance was only 3mm. The nuts must be carefully and evenly tightened. Further, tightening should be made during the process of heating up the boiler when raising steam.

**Steam-pipes:**—When they are properly arranged, should give no trouble. Frequently, however, they are so designed as to contain pockets, in which, while out of use, condensed steam accumulates. Such water is exceedingly dangerous and great care should be taken to see that the pipes are properly drained before the stop-valve is opened otherwise "water hammer" will take place even with the best designed steam pipes, and disastrous explosions, causing loss of life and property may occur.

**Scale and grease:**—Roughly speaking, scale offers a hundred times as much resistance to the passage of heat as does a similar thickness of steel or iron. A 12.7 mm. furnace plate covered with 2.5 mm. scale is as efficient a heat retarder as steel furnace 254 mm. thick. Grease is about ten times worse than scale. In a boiler at work the temperature of a clean furnace plate is only slightly in excess of that of the water in the boiler; but if scale or grease is interposed between the water and the plate, the

latter acquires a temperature more nearly approximately that of the flame with which it is in contact. If the fire is fierce (artificial draught) the furnace tube may grow so hot that it elongates considerably. If in addition cold air is admitted during each firing, a concerting action of the furnace takes place which is done of the worst causes of boiler wear and tear.

**Wear and tear:**—can be reduced and the life of a boiler prolonged if scale and grease are prevented from accumulating in a boiler. The combined effects of scale or grease and artificial draught are disastrous. Scale or grease also causes waste of fuel.

**Grease:**—a mixture of sedimentary water, soda and grease produces an adhesive scum, where this is suspected, the water level should never be lowered below the furnace-top unless the boiler is afterwards entered and this scum cleaned off the furnace plate before firing again.

**Scale Removal:**—The customary method is not a satisfactory one. The boiler is emptied and then cooled down by opening all the manholes and the result is that the scale which would otherwise be soft, hardens through contact with the air and requires laborious chipping off.

A very effective but slower method is to retain the water in the boiler until cool and not to run it out until the men are ready to enter the boiler with water hose brushes and scrapers. The scale will then be soft and easily removed.

If time is a consideration, the cooling can be accelerated by adding cold feed to the hot water in the boiler and slowly running off the cold water. Another method is to blow off the boiler with the lowest possible pressure (not more than 1.4 kgs. per sq. cm.) and to keep it closed until cold. The scale will then be easily removed.

**Treatment of Feed Water:**—Many feed waters require soda or other chemicals to arrest corrosion or to change the nature of the scale.

There is no harmless chemical which will remove scale or sediment when it has once got into the boiler and the only effective process is to purify the feed water before it enters the boiler. By this means, the sediment and generally too, the added chemical, can be deposited in tanks or in filters and therefore never goes into the boiler. Excepting when the water obtainable is very good, water purifying apparatus ought to be used by any boiler owner, particularly at those works where three or more boilers are in constant work. Boiler owners wishing to have definite advice as to the best treatment of their feed water should have it analysed at some chemical laboratory and ascertain in best treatment in the particular circumstances.

Special attention is drawn to the not infrequent but very bad practice of allowing the waste steam from the Engine Cylinders or Pumps to be drained into the Boiler Feed Water tanks. The waste steam from cylinders is always fixed with a certain amount of oily matter which will be deposited in the feed water tanks and ultimately be pumped into the boiler, with possibly disastrous results as it will be obvious to every careful boiler attendant that should the oil be deposited on the furnace crowns they may become over-heated and collapse.

Care should be taken by the boiler owner and the Boiler Attendant to see that the feed water is kept as pure as possible. Impure feed water means additional expense on the upkeep of the boiler.

**Preservation of boilers when not in use:**—Steam boilers when not in use are liable to deterioration from corrosion and unless well cared for and made rust-proof, they may depreciate more rapidly than when in use. They should be thoroughly drained and thoroughly dried and all valves, cocks and openings closed so as to exclude moisture. Another method is to fill the boiler with water to which about 1/100 per cent caustic soda, has been added.

Special instructions for Boiler No. ... :—This boiler should be opened up and thoroughly cleaned after a period of work which should not exceed ... A record of such cleanings should be maintained and produced, when required by the Inspector/Chief Inspector.

By order and in the name of the Lieutenant Governor of Goa, Daman and Diu.

S. D. Sadhale, Under Secretary (Industries and Labour).

Panaji, 15th December, 1983.

**Notification**

26/1/81-ILD (IV)

Whereas certain draft rules which the Government of Goa, Daman and Diu proposes to make under section 29 of the Indian Boilers Act, 1923 (Central Act No. 5 of 1923), were published as required under sub-section (1) of section 31 of the said Act at page 113 of the Official Gazette, Series I, No. 11 dated 16-6-1983 under Notification No. 26/1/81-ILD (IV), dated 6-5-1983 of the Industries and Labour Department, Government of Goa, Daman and Diu, Secretariat, Panaji (hereinafter called the 'said notification') inviting objections and suggestions from persons likely to be affected thereby, till the expiry of the period of one month from the date of publication of the said Notification in the Official Gazette.

And whereas the said Gazette was made available to the public on 16-6-1983.

And whereas no objections, suggestions and representations have been received from the public on the said notification by the Government within the stipulated period.

Now, therefore, in exercise of the powers conferred by section 29 of the Indian Boilers Act, 1923 (Central Act 5 of 1923) and all other powers enabling it in this behalf, the Government of Goa, Daman and Diu hereby makes the following Rules namely: —

**CHAPTER I****Preliminary**

**1. Short title and commencement.** — (1) These rules may be called the Goa, Daman and Diu Boiler Attendants' Rules, 1983.

(2) They shall come into force at once.

**2. Definitions.** — In these rules, unless the context otherwise requires, —

(a) "Act" means the Indian Boilers Act, 1923;

(b) "Board" means the Board of Examiners constituted under rule 9 of the Rules;

(c) "Chief Inspector" means the Chief Inspector appointed under the Act;

(d) "Government" means the Government of Goa, Daman and Diu;

(e) "Rules" means the Goa, Daman and Diu Boiler Attendants' Rules, 1983;

(f) "Section" means a section of the Act;

(g) "Union territory" means the Union territory of Goa, Daman and Diu;

(h) every reference in these rules to a boiler or boilers shall be deemed to include also a reference to an economiser or economisers, respectively.

**CHAPTER II****General**

**3. Boiler to be in charge of a person holding Boiler Attendants' Certificate.** — No owner of a boiler shall use it or permit it to be used unless there is a fit and proper person as in immediate attendance and charge thereof:

Provided that the Government may by notification in the Official Gazette, exempt any boiler or classes or types of boilers from the operation of this rule:

Provided further that nothing in these rules shall debar a person holding a certificate of competency as an attendant, granted under these rules from remaining in attendance and in charge of a boiler or boilers to the extent of his qualification indicated in such certificate.

**4. Competent person must possess certificate.** — No person who does not possess a certificate of competency as an attendant under these rules shall be deemed a fit and proper person to hold charge of a boiler and no holder of any such certificate shall be deemed a fit and proper person to be in attendance and in charge of a boiler except to the extent of his qualification indicated in such certificate:

Provided that in respect of a boiler of any capacity worked by the military authority, a person holding a certificate of competency as Boiler Attendant issued by a competent military authority shall, while he is in military employment and working under the sole control of the military authority, be deemed a fit and proper person to be in attendance and charge of the boiler.

**5. Holders to produce the certificate when called for by any authorised person.** — The holder of a certificate under these rules shall, at all reasonable times during the period any boiler is in his charge, be bound to produce such certificate when called upon to do so by any of the persons empowered under section 15 to call for the production of the certificate or provisional order authorising the use of the boiler.

**6. Owner to furnish particulars of certificates to Chief Inspector.** — (1) The owner of any boiler or battery of boilers, who engages any person to be in charge thereof, shall within seven days of such engagement, furnish the Chief Inspector with full particulars of such person including the grade, serial number, date and place of issue of his certificate.

(2) The owner of any boiler who engages any person to hold charge of such boiler shall, in the event of such person leaving his employment or in the event of the death of such person, report the fact forthwith to the Chief Inspector and shall send along with the report the certificate granted under these rules to such person if the same is deposited with him:

Provided that where the person so engaged to hold charge of the boiler leaves the employment after due notice, the owner shall return the certifi-

cate to such person instead of sending it to the Chief Inspector.

**7. Limits of daily period of attendance, etc. — (1)**

An attendant in charge of a boiler for which a certificate of competency as an attendant of the first class is required, may be relieved of the charge in any one day for not more than two periods, the total of which does not exceed two hours, by a person holding a certificate of the second class.

(2) The holder of a first class certificate may, with the consent, in writing, of the Chief Inspector, be relieved by a person holding a certificate of the second class for a period, which may extend to seven consecutive days which, in special circumstances, the Chief Inspector may extend to any length of time not exceeding 30 days at a time.

(3) A person in charge of a boiler shall be deemed to be in direct and immediate attendance and charge thereof when he is within 46 metres of such boiler.

**8. When boiler deemed to be in use. — (1)** A boiler shall be deemed to be in use for the purpose of these rules when there is active fire in the furnace, firebox or fireplace for the purpose of heating the water in the boiler. A boiler shall be deemed to be not in use only when the fire is removed and all steam and water connections are closed.

(2) An economiser shall be deemed to be in use for the purpose of these rules, when there is a flow of flue gases past the economiser and an appreciable heat transfer between the water and the heating gases.

### CHAPTER III

#### Board of Examiners

**9. Constitution of the Board of Examiners. — (1)** A Board of Examiners shall be constituted by the Government which shall consist of the Chief Inspector, an Inspector nominated by the Chief Inspector and not less than two other members having theoretical and practical knowledge of prime movers and modern boiler practice to be appointed by the Government from time to time.

(2) The Chief Inspector shall be the ex-officio Chairman and the Inspector nominated by the Chief Inspector shall be the ex-officio secretary to the Board.

**10. Term of office of the members. —** The term of office of each of the members, other than the ex-officio members of the Board, shall be three years. If a member dies, resigns or is removed from office or leaves the Union territory or remains absent therefrom for a period of more than six months, he shall be deemed to have vacated his seat on the Board and another person may be appointed in his place by the Government for the un-expired portion of his term.

#### **11. Functions of the Board. —**The Board shall —

(i) conduct examination for the grant of Certificate of Competency as a Boiler Attendant;

(ii) grant Certificate of Competency as a Boiler Attendant;

(iii) consider the report of inquiry into allegations of drunkenness, negligence or misconduct on the part of a Boiler Attendant holding Certificate of Competency under these rules and take such action as it may consider necessary.

**12. Meetings of the Board. —** The Board shall meet as often as, in the opinion of the Chairman, may be necessary for transacting business which cannot be disposed of by circulation of papers. At least 15 clear days' notice of a meeting shall be sent to each member.

**13. Quorum. —** The Chairman or the Secretary and two members of the Board shall form quorum.

**14. Chairman of the Board. —** The Chairman shall preside over the meetings of the Board and in his absence, a member chosen by the members present at the meeting, shall preside over the meeting.

**15. Functions of the Secretary of the Board. —** The Secretary of the Board shall maintain a register of Boiler Attendants holding certificates of competency and shall perform such other functions as are specified in these rules or as the Chairman of the Board may direct.

**16. Board's endorsement on application. —** The Board shall endorse on the printed application form of each candidate the result of his examination for a Certificate of Competency as a Boiler Attendant. The endorsed application shall be returned to the Secretary to the Board.

**17. Board empowered to refuse issue of certificate. —** The Board shall have power to refuse the issue of Certificate of Competency as a Boiler Attendant to any candidate who, in the opinion of the majority of the members, appears too old or physically unfit through deformity, constitutional weakness, defective eyesight, deafness or loss of a limb to perform efficiently the duties of a Boiler Attendant.

The Board may require any candidate to produce a certificate of fitness from a registered medical practitioner. If the candidate produces such certificate of physical fitness the Board shall issue a certificate.

**18. Fees for attending meetings. —** Each non-official member of the Board shall be entitled to a fee of sixty rupees for each meeting of the Board lasting more than three hours or a fee of thirty rupees for each meeting lasting less than three hours at which any duty prescribed in these rules in relation to certificates of Competency as Boiler Attendants has been performed and which he has attended from the beginning to the end.

## CHAPTER IV

## Examination

**19. Examinations.**—Examinations for the grant of Certificates of Competency as a Boiler Attendant shall be held by the Board at Panaji, Goa and at such other place or places as the Government may, from time to time, determine and on such dates as may be notified by the Secretary to the Board in the Official Gazette.

**20. Kinds of Examinations.**—Examination for granting Certificate of Competency as a Boiler Attendant shall be of two kinds, viz. one for the award of Certificate of Competency of First Class as a Boiler Attendant and the other for the award of Certificate of Competency of Second Class as a Boiler Attendant.

**21. Postponement of examination.**—When a date fixed for the examination is declared as a gazetted holiday or when, for any unforeseen reason an examination cannot be held on the date fixed, the Chairman may fix some other date for holding the examination and the same shall be duly notified to the candidates.

## CHAPTER V

## Certificate of Competency

**22. Classes of certificates and capabilities of holders thereof.**—Except as otherwise provided in these rules, a Certificate of Competency granted thereunder shall be of two classes. The Certificate of Competency of First Class shall qualify the holder thereof to be in charge of either a single boiler or of two or more boilers in a battery, the total heating surface of which does not exceed 700 square metres. It shall also qualify the holder thereof to be in charge of so many separate individual boilers, the total heating surface of which does not exceed 700 square metres provided that such boilers are situated within a radius of 23 metres in the same premises and belong to the same owner and that the said holder is assisted by a Second Class Boiler Attendant, or such number of firemen as are considered necessary by the Chief Inspector of Boilers.

A Certificate of Competency of Second Class shall qualify the holder thereof to be in charge of a single boiler of any kind, the heating surface of which does not exceed 140 square metres:

Provided that a Second Class Boiler Attendant may attend to a battery of boilers (not consisting of more than three connected boilers and not exceeding 140 square metres in aggregate of the total heating surface) if he is assisted by such number of firemen as are considered necessary by the Chief Inspector of Boilers:

Provided further that the National Apprenticeship Certificate in the trade of Boiler Attendant awarded by the National Council for Technical and Vocational Trades shall be deemed to be equivalent to Certificate of Competency of Second Class granted under these rules.

**23. Exchange certificate.**—A person holding a Certificate of Competency as an Attendant or Engineer granted by a Board under the corresponding rules in any other State of India shall, on application,

have the certificate endorsed for validity in this Union territory. Such endorsement shall be made by the Chairman of the Board.

**24. Fees for examination.**—(1) A candidate for examination for Certificate of Competency shall pay the following fee, which shall not, except as otherwise provided in these rules, be refundable—

Examination for Certificate of Competency of First Class—Rs. 30.

Examination for Certificate of Competency of Second Class—Rs. 20.

(2) The fee shall be paid in the Government Treasury in this Union territory.

**25. Refund of fees.**—Where a candidate on account of unavoidable circumstances is absent from the examination on the date fixed, the Chairman of the Board may allow him to appear without payment of a second fee at the next examination.

**26. Fees of candidates found ineligible.**—A candidate who has paid the examination fee but is found ineligible for an examination may apply within one year from the date of payment thereof for refund of the fee, or he may be allowed to appear without payment of second fee at any subsequent examination held within one year from the date of payment of the fee, provided that he becomes eligible to sit for such subsequent examination.

**27. Form of Application.**—Every application for examination shall be in Form A appended to these rules. The applicant shall fill in such parts of the Form as are required to be filled in by him and shall sign the application in the presence of a Gazetted Officer or a Magistrate who shall attest his signature. The application duly filled in shall be forwarded to the office of the Chairman of the Board on or before the date fixed by the Chairman which shall not be later than one month before the date fixed for the examination and shall be accompanied by—

(a) originals and one copy each of all testimonials of both practical and theoretical experience of the candidate;

(b) testimonials of good character from his employer;

(c) receipt from Government Treasury in this Union territory in respect of the fee paid under sub-rule (2) of rule 24;

(d) any certificate granted to the applicant under these rules or a certificate granted by a competent authority referred to in rule 23;

(e) two copies of recent bust photographs (size 5 cms × 5.6 cms) one of which shall bear the signature or the thumb impression of the applicant on the back.

**28. Candidate to produce satisfactory testimonials.**—No candidate shall be admitted to examination unless he produces satisfactory testimonials certifying his experience, ability, sobriety and general good conduct for the whole period of his qualifying service. Any break in the period of the qualifying service shall be accounted for.

**29. Essential statements.**—A testimonial shall clearly state the capacity in which the candidate was employed, whether as Boiler Attendant, Head Fireman, Donkeyman or Fireman and the periods of such employment stating the dates during which the candidate was so employed.

**30. Signature and countersignature.**—A testimonial shall be signed by a responsible person under whom the candidate was employed and be countersigned by the owner, agent, manager or secretary of the mill, factory or workshop, as the case may be.

**31. Service on steamship.**—A testimonial in respect of service on a steam-ship may be signed by the Chief Engineer and countersigned by the master of the vessel or may be in the form of a seaman's discharge issued by a Shipping Master.

**32. Service in a Railway or Public Works Department.**—A testimonial of service of railway boilers, or boilers belonging to the Public Works Department or local authorities shall be signed by a responsible officer under whom the candidate has directly served and countersigned by the Head of the department concerned.

**33. Doubtful testimonials.**—If the Secretary to the Board has reason to doubt the truth of any statement made in any application or testimonial, he may make such enquiries as he thinks fit to verify the same.

**34. False testimonials.**—If on enquiry, the Secretary is satisfied that any testimonial submitted by a candidate is false in any material particular, he shall submit his findings to the Chairman of the Board who may, by a written order, debar such candidate from being admitted to any subsequent examination held under these rules for such period as may be specified in the said order. If, on the strength of any such testimonial, a candidate has already been admitted to an examination, he shall be deemed to have failed in such examination and any certificate granted to him as a result of his having been declared to have passed such examination shall forthwith be recalled and be cancelled by a notification in the Official Gazette; provided that before any certificate is cancelled under this rule, the holder thereof shall be given a reasonable opportunity of being heard in the matter.

**35. Filing of copies and return of original testimonials.**—Applications and copies of testimonials submitted by the candidates shall be filed in the office of the Chairman of the Board. Original testimonials shall be returned to the candidates after the close of the examination.

**36. Age and training of second class candidates.**—A candidate for a Certificate of Competency of the Second Class as a Boiler Attendant shall not be less than 20 years of age and shall not be admitted to the examination unless he proves to the satisfaction of the Board that he—

(a) has served for not less than three years in the capacity of a fireman or an assistant fireman on a steam boiler or a combined steam engine and a boiler; or

(b) has served for not less than three years as an engine fitter where boilers and engines are repaired or made and worked under steam, the one year at least of which, he should have worked as an Assistant Fireman; or

(c) produces from the head of an industrial or technical institution a certificate stating that he has completed a three years' course of training, one year of which must have been as an apprentice in a steam power plant of a mill or factory or an engineering workshop for the maintenance of boilers.

**37. Age and training of first class candidates.**—A candidate for Certificate of Competency of the First Class as a Boiler Attendant shall not be less than twenty one years of age and shall not be admitted to the examination unless he possesses a Certificate of Competency of the Second Class and proves to the satisfaction of the Board that—

(a) has served for not less than two years as a boiler attendant with Certificate of Competency of Second Class or its equivalent in sole working charge of a boiler whose rated heating surface is not less than 46 square metres; or

(b) produces from the head of an industrial or technical institution a certificate stating that he has completed a three years' course of training, one year of which must have been as an apprentice in a steam power plant of a mill or factory or an engineering workshop where engines and boilers are repaired or made and in addition has served for not less than one year in sole working charge of a boiler of not less than 46 square metres of heating surface with a Certificate of Competency of Second Class as Boiler Attendant or its equivalent.

**38. Services not in strict conformity with rules.**—Notwithstanding anything to the contrary contained in rules 36 and 37, the Government may empower the Chairman of the Board to admit at his discretion any candidate to an examination under these rules, if he so thinks fit.

**39. Second Class Boiler Attendants.**—A candidate in order to be qualified for a Certificate of Competency of the Second Class, shall, inter-alia, satisfy the examiners that—

(a) he clearly understands—

(i) the working and management of a steam boiler and economiser;

(ii) the use and purpose of the various valves, cocks, mountings and fittings;

(iii) the precautions to be taken and procedure to be observed before starting fires and when raising steam;

(iv) the need for periodical cleaning and pure water supply and for prevention of scale or other deposits on heating surfaces;

(v) the use of a feed pump and injector;

(vi) the reading of the pressure gauge;

(vii) the need for periodical inspection of boilers and the manner in which they should be prepared for thorough inspection, hydraulic test and steam test;



(viii) the precautions to be taken before entering or allowing any person to enter a boiler that is connected to another boiler under steam;

(ix) the use of the best means of firing for the prevention of smoke;

(x) the danger of water lodging in steam pipes and the precautions to be observed in draining;

(xi) the procedure to be followed in the event of shortage of water, bulging or fracture of furnaces or flat plates or bursting of tubes or of any accidents to a boiler or steam pipe;

(xii) precautions to be taken when starting an economiser to work after a period of rest;

(xiii) procedure to be adopted in bringing an economiser into commission and also to putting it out of commission while the boiler is on steam; and that

(b) he is able, inter-alia, —

(i) to stoke a boiler including cleaning and banking fires in a workmanlike manner;

(ii) to show how avoidable smoke may be prevented;

(iii) to blow through and test the correctness of water-gauge glasses and test cocks;

(iv) to replace a gauge glass and show how a false water level glass might be shown;

(v) to ease a safety valve and use a blow down cock or valve;

(vi) to adjust a high steam and low water safety valve and renew a fusible plug;

(vii) to pack pump or valve chest glands;

(viii) to grind and adjust cocks and valves;

(ix) to take a feed pump or injector to pieces and replace in working order;

(x) to handle the appliances provided for keeping the economiser clean.

**40. First Class Boiler Attendants.** — A candidate in order to be qualified for a Certificate of Competency of the First Class, shall satisfy the examiners that, in addition to the subjects specified for candidates for Certificate of Competency of the Second Class, he has at least a rudimentary knowledge of the principal elementary facts relating to combustion, heat and steam; and that he is able to explain, inter-alia, —

(i) the principal causes and effects of corrosion and incrustation and the usual remedies employed;

(ii) the object of the use of water softeners;

(iii) the principles on which feed pumps and injectors work;

(iv) the principles on which appliances for the prevention of smoke work;

(v) the purpose of super-heaters, economisers, feed heaters, feed filters, forced and induced drafts appliances and mechanical stokers.

**41. Examination in writing optional.** — The examination shall be conducted orally, but any candidate may, if he desires, write his answers to such written questions as may be given to him by the examiners.

**42. Examination where held.** — If the Board consider necessary, the examination may be held either in a factory or mill or in a workshop in which boilers are used or partly in such factory, mill or workshop and partly in the examination room where models and sketches of boilers may be kept for viva-voce test.

**43. Hours of examination.** — Examination shall be conducted in the examination room between the hours of 11 a. m. and 5 p. m. unless otherwise notified by the Chairman and elsewhere, at such times as the examiner may fix.

#### CHAPTER VI

##### Grant of Certificate

**44. Grant of certificate of competency.** — If a candidate passes the examination, the result will be notified in the Official Gazette and he shall be granted a certificate in accordance with the class in which he passed as soon as practicable after the close of the examination.

**45. Form of certificate.** — Every Certificate of Competency of the First Class or Second Class as a Boiler Attendant shall be in Forms B and C, respectively, appended to these rules.

**46. Surrender of lower grade certificate.** — No Certificate of Competency of the First Class shall be granted to the holder of a Certificate of Competency of the Second Class after examination under these rules unless and until he has surrendered to the Chairman the Certificate of Competency of the Second Class.

**47. Application for exchange certificate.** — An application for the endorsement of validity of a Certificate of Competency as a Boiler Attendant under rule 23 shall be in Form A appended to these rules.

**48. Identification requirement.** — Every certificate granted under these rules shall bear a bust photograph of the holder thereof previously submitted alongwith his application under rule 27 and his signature or thumb impression and such other particulars as may be required for the purpose of identification.

**49. Grant of duplicate certificate.** — (1) Whenever the holder of a certificate proves to the satisfaction of the Chairman of the Board that a certificate granted to him under these rules has been lost, stolen or destroyed or mutilated without any fault on his part, he shall be granted a duplicate certificate to which, by the record so kept as aforesaid, he appears to be entitled, which shall have for all purposes the same validity as the original certificate.

(2) If on the enquiry the Secretary to the Board is satisfied that any statement made by the applicant for the issue of a duplicate certificate is false, he shall report the case to the said Board at its next meeting and the Board may, at its discretion, cancel the certificate or permit the grant as aforesaid of a duplicate certificate either immediately or after such period not exceeding twelve months as the



Board may think fit having regard to the circumstances of each case.

**50. Application for duplicate certificate.**—An application for a duplicate certificate shall be made to the Chairman of the Board with a declaration sworn before a Gazetted Officer or a Magistrate stating that the certificate granted under these rules has been lost, stolen or destroyed without any fault on the part of the applicant. The fee of ten rupees shall be paid for such application which shall be accompanied by a Treasury Challan for the payment of the said fee.

**51. Invalidity of original certificate.**—On the issue of a duplicate certificate, the original certificate shall cease to be valid, and shall if in the possession or power of the holder thereof, be returned to the office of the Chairman for cancellation.

**52. Enquiry regarding certificate holders.**—(1) If a District Magistrate or the Chief Inspector of Boilers has reason to believe, from any cause whatsoever, that an enquiry should be made into an allegation of incompetency, drunkenness, misconduct or negligence on the part of an Attendant holding a Certificate of Competency under these rules, they shall either themselves make such enquiry or cause it to be made by their subordinate officers. The District Magistrate may depute a Sub-Divisional Magistrate or a Magistrate of the First Class and the Chief Inspector an Inspector of Boilers duly authorised by him to hold such inquiry.

(2) The holder of such certificate shall, on demand by the officer charged with the inquiry, forthwith

place in the hands of such officer his certificate to abide by the result of such enquiry.

(3) The proceedings shall be held in the presence of the person whose conduct forms the subject of the inquiry and he shall have an opportunity of making any statement he may wish to make and of producing any evidence in his defence.

(4) The proceedings of any such enquiry shall be forwarded by the officer conducting the enquiry to the Secretary to the Board for consideration by the Board.

**53. Submission of proceedings before the Board.**—The Secretary to the Board shall submit the proceedings sent under sub-rule (4) of rule 52 before the Board at its next meeting and the Board in its discretion may allow the certificate to stand or may cancel the certificate permanently or suspend it for such period as it thinks fit.

#### CHAPTER VII

##### Penalty

**54. Cognizance of offence.**—(1) The owner of a boiler, who works or permits or causes the boiler to be worked at any time in contravention of rule 3, shall, on conviction, be punished with fine which may extend to two hundred and fifty rupees.

(2) Any person in charge of a boiler or any other person who operates the same or permits or causes it to be operated in contravention of rules 4, 5, 6 and 7 shall on conviction be punished with fine which may extend to two hundred and fifty rupees.

#### FORM A

Registered No.

(See rules 27 and 47 of the Goa, Daman and Diu Boiler Attendants' Rules 1983)

INDIAN BOILERS ACT, 1923 (V OF 1923)

Application for Certificate of Competency as Boiler Attendant

Division I—Name, etc. of the applicant

Name in full	Nationality	Date of Birth	Place of Birth	Permanent Address	Nature of certificate	Grade of certificate applied for	Whether appeared in previous examination	If so, when and where
1	2	3	4	5	6	7	8	9

Division II—Particulars of all previous certificates (if any) issued in India

Number of certificate	Class of certificate	Where issued	Date of issue	If at any time suspended or cancelled, if so, state by whom	Date	Causes of suspension or cancellation
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#### Division III—List of Testimonials and Statement of Services

(The testimonials to be numbered consecutively according to the number given in column 1 below)

No. of testimonials (if any)	Date of each testimonial	Name of person signing each testimonial	Address and designation of factory or workshop where employed	No. and type and heating surface of boilers	Capacity in which employed	Service of applicant					Initial of verifier To be filled by the Board	REMARKS
						Date of commencement	Date of termination	Time employed in this service				
								Year	Month	Days		
1	2	3	4	5	6	7	8	9	10	11	12	13

Total service —

Time served for which certificates are produced —

Time served for which no certificates are produced —

#### Division IV — Certificate of Competency

Certified that Shri ... has been examined for a Certificate of Competency as Boiler Attendant of ... Class at this ... day of ... 19 ... and has/has not satisfied us of his fitness to hold a certificate of competency as a ... Class Boiler Attendant. He has therefore passed/failed.

#### Personal description of applicant

- (1) Nationality
- (2) Height ... mt. ... cms.
- (3) Complexion
- (4) Colour of hair
- (5) Colour of eyes
- (6) Personal marks or peculiarities

Signature of Board of Examiners.

#### ISSUE OF CERTIFICATE

Certificate No. ... of the ... Class Boiler Attendant issued and the duplicate recorded.

Secretary, Board of Examiners.

#### Division V — Declaration to be made by the applicant

I do hereby declare that the statements made in Divisions I, II and III of this Form are correct and true to the best of my knowledge and belief; and that the papers enumerated in Division III and submitted with this Form are true and genuine documents and further that the copies of the documents submitted with this Form are true and correct. I further declare that the Statements made in Division III contain a true and correct account of the whole period of my service without exception, and I make this declaration conscientiously believing the same to be true.

Date at ... this ... day of ... 19 ...

Signed in the presence of —

Signature...

Designation ...

Signature of the applicant  
Present address...

Notes: — (1) Every application must be accompanied by a treasury challan in the Union territory showing that the fee for the examination has been paid.

(2) Two copies of a recent bust photograph of the applicant (size 2"X1/4") be accompanied with the application with applicant's signature on the back thereof.

(3) Any person making false statement for the purpose of admission to the examination renders himself liable to prosecution.

(4) Incomplete applications are liable to be rejected.

#### FORM B

State Emblem.

#### GOVERNMENT OF GOA, DAMAN AND DIU

*First Class Boiler Attendant Certificate of Competency*  
(Granted under rule 45 of the Goa, Daman and Diu Boiler Attendants' Rules 1983)

No.

of 19

Shri ... aged about ... years, at present residing at ... having satisfied the Board of Examiners appointed under the Goa, Daman and Diu Boiler Attendants' Rules, 1983, of his competency to fulfil the duties of First Class Boiler Attendant

is granted under the said rules this Certificate of Competency as a First Class Boiler Attendant authorising him to have charge of a single boiler of any type or capacity, or two or more boilers in a battery or separate, the total heating surface of which does not exceed 694.25 square metres provided that such boiler shall be situated within a radius of 23 metres in the same premises and belong to the same owner and that he is assisted by a Second Class Boiler Attendant or \*..... firemen.

Dated at ... this ... day of ... 19 ...

Secretary to the Board of Examiners.

Chairman to the Board of Examiners.

#### Descriptive Roll

1. Date and place of birth —
2. Address —
3. Nationality —
4. Height without shoes —
5. Marks of identification —
6. Left thumb impression —
7. Signature —

PHOTO

\* Here insert the number of firemen considered necessary by the Chief Inspector of Boilers.

#### FORM C

State Emblem.

#### GOVERNMENT OF GOA, DAMAN AND DIU

*Second Class Boiler Attendant Certificate of Competency*  
(Granted under the rule 45 of the Goa, Daman and Diu Boiler Attendants' Rules, 1983)

No.

of 19

Shri ... aged about ... years, at present residing at ... having satisfied the Board of Examiners appointed under the Goa, Daman and Diu Boiler Attendants' Rules, 1983, of his competency to fulfil the duties of a Second Class Boiler Attendant is granted under the said rules this Certificate of Competency as a Second Class Boiler Attendant authorising him to have charge of a single boiler of any type the heating surface of which does not exceed 140 square metres. He may, however, attend to a battery of boilers (not consisting of more than three connected boilers and not exceeding 140 square metres in aggregate of total heating surface), provided he is assisted by\*

Dated at ... this ... day of ... 19 ...

Secretary to the Board of Examiners.

Chairman to the Board of Examiners.

#### Descriptive Roll

1. Date and place of birth —
2. Address —
3. Nationality —
4. Height without shoes —
5. Marks of identification —
6. Left thumb impression —
7. Signature —

PHOTO

\* Here insert number of firemen considered necessary by the Chief Inspector.

By order and in the name of the Lieutenant Governor of Goa, Daman and Diu.

S. D. Sadhale, Under Secretary (Industries and Labour).

Panaji, 15th December, 1983.

**Notification**

21/1/81-ILD (III)

Whereas certain draft rules which the Government of Goa, Daman and Diu proposes to make under section 29 of the Indian Boilers Act, 1923 (Central Act 5 of 1923), were published as required under sub-section (1) of section 31 of the said Act, at page 103 of the Official Gazette, Series I, No. 10, dated 9-6-1983 under the Notification No. 21/1/81-ILD (III), dated nil of the Industries and Labour Department, Government of Goa, Daman and Diu, Secretariat, Panaji (hereinafter called the 'said Notification'), inviting objections and suggestions from persons likely to be affected thereby, till the expiry of the period of one month from the date of publication of the said notification in the Official Gazette.

And whereas the said Gazette was made available to the public on 9th June, 1983;

And whereas no objections, suggestions or representations have been received from the public on the said proposal by the Government within the stipulated period.

Now, therefore, in exercise of the powers conferred by section 29 of the Indian Boilers Act, 1923 (Central Act 5 of 1923) and all other powers enabling it in this behalf, the Government of Goa, Daman and Diu, hereby makes the following rules namely:

**CHAPTER I****Preliminary**

1. **Short title, commencement and extent.** — (1) These rules may be called the Goa, Daman and Diu Boiler Operation Engineers' Rules, 1983.

(2) They shall come into force at once.

(3) They extend to the whole of the Union Territory of Goa, Daman and Diu.

2. **Definitions** — In these rules, unless the context otherwise requires, —

(a) "Act" means the Indian Boilers Act, 1923 (Central Act V of 1923);

(b) "Board" means the Board of Examiners constituted under these rules;

(c) "Boiler Attendant" means a person holding a certificate of competency as an Attendant under the Goa, Daman and Diu Boiler Attendants' Rules, 1983;

(d) "Chairman" means the Chairman of the Board;

(e) "Form" means a form appended to these rules;

(f) "Government" means the Government of Goa, Daman and Diu;

(g) "Rules" means the Goa, Daman and Diu Boiler Operation Engineers' Rules, 1983;

(h) "Secretary" means the Secretary of the Board;

(i) "Section" means a section of the Act;

(j) "Union territory" means the Union territory of Goa, Daman and Diu;

(k) any reference in these rules to a boiler or boilers shall be deemed to include also a reference to an economiser or economisers.

**CHAPTER II****General**

3. **Boiler to be in charge of a person holding Boiler Operation Engineers' Certificate.** — The owner of a single boiler or two or more boilers connected in a battery or of so many separate individual boilers situated within a radius of 23 metres having a total heating surface exceeding 694.25 square metres in any of the cases shall not use the same or permit the same to be used unless the boiler or boilers are placed in direct charge of a competent person specified in rule 4 in addition to such number of boiler attendants as may be specified by the Chief Inspector of Boilers:

Provided that the Chief Inspector of Boilers may permit any boiler in operation to remain in charge of a Boiler Attendant for a maximum period of three months notwithstanding anything contrary contained in these rules:

Provided further that nothing in these rules shall debar a person holding a first class certificate of competency granted under the Goa, Daman and Diu Boiler Attendants' Rules, 1983 from remaining in attendance and in charge of a boiler or boilers to the extent of his qualifications indicated in such certificate.

4. **Competent person shall possess certificate of proficiency.** — No person who does not possess a certificate of proficiency as a Boiler Operation Engineer under these rules shall be deemed to be a fit and proper person to hold charge of a boiler or boilers exceeding the limits laid down under rule 3.

5. **Production of Certificate.** — A Boiler Operation Engineer holding a certificate of proficiency under these rules shall, at all reasonable times during the period any boiler is in his charge or attendance, be bound to produce such certificate when called upon to do so by any of the persons empowered under section 15 to call for the production of a certificate or a provisional order authorising the use of the boiler.

6. **Owner to furnish Chief Inspector with particulars of certificates.** — (1) The owner of a boiler, who engages any person to be in charge thereof, shall within seven days of such engagement, furnish to the Chief Inspector with full particulars of such person including the serial number, date and place of issue of his certificate.

(2) The owner of a boiler, who engages any person to hold charge of such boiler, in the event of such person leaving his employment or in the event of the death of such person, report the fact within seven days to the Chief Inspector.

7. **Limits of daily period of attendance, reliefs and sphere of action.** — (a) A person in charge of a boiler shall be deemed to be in direct and immediate charge of the same when he is within 46 metres of such a boiler.

(b) An Operation Engineer of a boiler or boilers for which a certificate of proficiency is required may be relieved of charge by a person holding a first class certificate of competency as an attendant in any one day for not more than two periods, the total of which does not exceed two hours.

(c) The holder of a first class certificate of competency as a Boiler Attendant may also, with the consent in writing of the Chief Inspector, relieve a person holding a certificate of proficiency as an Operation Engineer for period which may extend to ten consecutive days which, in special circumstances, the Chief Inspector may extend to any length of time not exceeding thirty days at a time.

8. When Boiler deemed to be in use. — (a) A boiler shall be deemed to be in use for the purpose of these rules when there is fire in the furnace, firebox or fireplace for the purpose of heating the water in the boiler or under banked fire condition. A boiler shall be deemed to be not in use only when the fire is removed and all steam and water connections are closed.

(b) An economiser shall be deemed to be in use for the purpose of these rules when there is a flow of flue gases past the economiser and an appreciable heat transfer between the water and the heating gases.

### CHAPTER III

#### Board of Examiners

9. Constitution of the Board of Examiners. — (1) A Board of Examiners shall be constituted for the Union territory of Goa, Daman and Diu consisting of the Chief Inspector, an Inspector nominated by the Chief Inspector and not less than two other members having theoretical and practical knowledge of prime-movers and modern boiler practice to be appointed by the Government from time to time.

(2) The Chief Inspector shall be the ex-officio Chairman of the Board and the Inspector nominated by the Chief Inspector shall be the Secretary to the Board of Examiners.

10. Term of office of the members. — The term of office of each of the members, other than the ex-officio members of the Board shall be three years. If a member leaves the Union territory permanently or absents himself from three consecutive meetings of the Board without the permission of the Board, he shall be deemed to have vacated his seat on the Board and another person may be nominated in his place for the unexpired portion of his term of office.

11. Functions of the Board. — The Board shall —

(i) conduct examination for the grant of certificates of proficiency as Boiler Operation Engineers;

(ii) have powers to appoint any person as an external paper-setter and examiner at any such examination;

(iii) grant certificate of proficiency as Boiler Operation Engineer; and

(iv) consider the reports of enquiries into allegations of drunkenness, negligence of duty, misconduct on the part of Boiler Operation Engineer holding a certificate of proficiency granted under these rules and take such action as they may consider necessary.

12. Meetings of the Board. — The Board shall meet on such date, place and time as may be appointed by the Chairman for transacting business which cannot be disposed of by circulation of papers.

13. Notice of meeting and list of business/agenda.

— (1) Notice of not less than thirty days from the date of posting of the notice shall be given of the date, time and place fixed for each meeting of the Board to every member of the Board and with such notice shall be attached the list of business/agenda to be discussed at the meeting:

Provided that if the Chairman calls any meeting for considering any matter which in his opinion is urgent, a notice giving such reasonable time as he may consider necessary, shall be deemed sufficient.

(2) Any business which is not on the list shall not be considered at the meeting except with the permission of the Chairman.

14. Quorum. — The Chairman or the Secretary and two members of the Board shall form a quorum.

15. Chairman to preside at meetings of the Board. — The Chairman shall preside over all meetings of the Board and in his absence, a member chosen by the members present at the meeting shall preside over the meeting.

16. Functions of the Secretary to the Board. — The Secretary shall maintain a register of Boiler Operation Engineers and shall perform such other functions as are specified in these rules or as the Chairman may direct from time to time, in pursuance of these rules.

17. Board's endorsement on application. — The Board shall endorse on the printed application form of each candidate the result of his examination for a certificate of proficiency as a Boiler Operation Engineer, and the application shall be returned to the Secretary.

18. Board's power to refuse issue of certificate. — The Board may direct any candidate, who in the opinion of the majority of the members, appears too old or physically unfit through deformity, constitutional weakness, defective eyesight, deafness or loss of a limb to perform efficiently the duties of a Boiler Operation Engineer to produce a certificate of fitness from a registered medical practitioner. If, however, the candidate fails to produce a certificate of physical fitness, the Board shall have the power to refuse to issue the Certificate of Proficiency as a Boiler Operation Engineer.

19. Fees for attending meeting. — (a) Each non-official member of the Board shall be entitled to a fee of rupees seventy-five for each meeting of the Board lasting more than three hours or a fee of rupees thirty-five for each meeting lasting less than three hours which he had attended from the beginning to the end.

(b) Each examiner appointed under rule 11 shall be entitled to receive fees for examining candidates under these rules at such rate as may be specified by the Government from time to time.

20. Acts of the Board. — No act of the Board shall be deemed to be invalid by reason only of any defect in the constitution of the Board or by reason of such act having been done during the period of any vacancy in the Board.

## CHAPTER IV

## Examinations

**21. Examinations.**— Examination for the grant of Certificate of Proficiency as a Boiler Operation Engineer shall be held by the Board at such place and on such dates as may be notified by the Chairman from time to time in the Official Gazette and local papers.

**22. Postponement of examination.**— When a date fixed for the examination is declared a gazetted holiday or when for any unforeseen reason an examination cannot be held on the date fixed, the Chairman may fix some other date for holding the examination and the same shall be duly notified to the candidates.

## CHAPTER V

## Certificate

**23. Capabilities of holders of certificate.**— The Certificate of Proficiency as a Boiler Operation Engineer shall qualify the holder thereof to be in charge of a boiler or boilers of any type or size:

Provided that the boilers are so situated that none of them is at a distance of more than 45 metres from any other of them.

The holder of a Certificate of Proficiency as a Boiler Operation Engineer shall for all intents and purposes be deemed to have fulfilled the requirements of rule 4 of the Goa, Daman and Diu Boiler Attendants' Rules, 1983.

**24. Endorsement on a certificate.**— A person holding a Certificate of Proficiency as a Boiler Operation Engineer granted by a Board of Examiners under the corresponding rules in any other State/Union territory shall, on application, have a certificate endorsed for its validity in this territory. Such endorsement shall be made by the Chairman of the Board on payment of a fee of rupees ten.

## CHAPTER VI

## Application for Examination

**25. Form of application.**— Every application for examination shall be in Form A. The applicant shall fill in such parts of the Form as are to be filled in by a candidate and shall sign the Form in the presence of a Gazetted Officer or a Magistrate who shall attest his signature. The application so filled in shall be forwarded to the office of the Chairman of the Board of Examiners at least one month before the date fixed for the examination and shall be accompanied by—

(a) originals and one copy each of all testimonials in respect of both practical and theoretical qualifications of the candidate;

(b) testimonials of good character from his employer with a certificate of age;

(c) receipt from a Government treasury in the Union territory in respect of payment of the fee specified in these rules for the examination at which the applicant wishes to appear;

(d) any certificate granted to the applicant under these rules or a certificate granted by a competent authority referred to in rule 24; and

(e) two copies of recent photograph of bust size (5 cms.×6.5 cms.) one of which shall bear the signature of the applicant on the back duly attested by a Gazetted Officer or the employer.

**26. Candidate to produce satisfactory testimonials.**

— (1) No candidate shall be admitted to an examination who cannot produce a satisfactory testimonial certifying his experience, ability, sobriety and general good conduct for the whole period of his qualifying service as specified in rule 30. Any break in the period of qualifying service shall be accounted for. Such testimonials shall clearly state the capacity in which the candidate was employed, whether as an apprentice engineer, supervisor, Assistant Engineer or Engineer and the periods of such employment stating the dates between which the candidate was so employed.

(2) The testimonials shall be signed by a responsible person with whom the candidate was employed and be countersigned by the owner, agent, manager or secretary of the mill, factory or workshop or by such other persons as the Government may specify in this behalf.

(3) Candidates who have undergone a course of training at an Engineering College or Technical Institution must produce either the diploma granted by the institution or a certificate from the Principal or Superintendent as the case may be of the institution giving the period devoted in completing the course.

(4) A testimonial in respect of service on a steamship may be signed by the Chief Engineer and countersigned by the Master of the vessel or may be in the form of a seamen's discharge certificate issued by a Shipping Master.

(5) A testimonial of service rendered on railway boilers or boilers belonging to a Government or local bodies shall be signed by a responsible officer under whom the candidate has directly served and countersigned by the Head of the department concerned.

**27. Doubtful testimonials.**— If the Chairman has reason to doubt the truth of any statement made in any application or testimonials, he may make or cause to be made such enquiries as he thinks fit to verify the same.

**28. False testimonials.**— (1) If on inquiry, the Chairman is satisfied that any testimonial submitted by a candidate is false in any material particulars, he shall submit his findings to the Board. The Board may by a written order debar such candidate from being admitted to any subsequent examination held under these rules for such period as may be specified in the said order. If, on the strength of any such testimonials, a candidate has already been admitted to an examination, he shall be deemed to have failed in such examination and any certificate granted to him as a result of his having been declared to have passed such examination, shall forthwith be recalled and be cancelled by a Notification in the Official Gazette:

Provided that before taking any such action, the candidate shall be given a reasonable opportunity of being heard in the matter.

(2) A candidate aggrieved by the decision of the Board may, within thirty days of the date of the receipt of the order, appeal to the Government whose decision thereon shall be final.

29. **Filing of copies and return of original testimonials.**— Applications and copies of testimonials submitted by the candidates shall be filed in the office of the Board. Original testimonials shall be returned to the candidates as soon as possible.

#### CHAPTER VII

##### Age and Training

30. **Qualifications required.**— A candidate for a certificate of proficiency as a Boiler Operation Engineer shall not be less than 23 years of age and shall not be admitted to the examination unless he proves to the satisfaction of the Chairman that he has successfully —

(a) completed a full time Apprentice Engineer's course in a recognised workshop engaged in making or repairing of boilers and accessories or completed a Degree or Diploma course in Mechanical or Electrical Engineering recognised by the Government, and

(b) served for not less than two years as an Engineer or Assistant Engineer in the running and maintenance of a battery of boilers not less than two in number and each of not less than 92.9 square metres heating surface:

Provided that where an applicant does not fulfil the service conditions laid down above, the Board may, if it is satisfied that the applicant has served in another position, for the minimum period laid down therein and obtained sufficient practical experience in boiler working, maintenance and repairs, relax such conditions and admit him to the examination.

31. **Service not in strict conformity with rules.**— Candidates who have attended courses of instructions from such engineering colleges or technical institutions as are recognised by the Government and have obtained a certificate showing that they have passed appropriate examination at the termination of the course will be granted exemption from appearing in the papers in Mathematics, Applied Mechanics, Boilers and Heat Engines and Drawing. Notwithstanding anything to the contrary contained in rule 30, the Board, on sufficient cause being shown, may allow any candidate to appear for the examination or grant exemption from any portion of the examination as prescribed in these rules.

#### CHAPTER VIII

##### Examination subjects

32. **Syllabus for examination.**— A candidate in order to be qualified for a certificate of proficiency under these rules shall inter alia satisfy the examiners that he —

(a) can calculate loads, areas, volumes, quantities and weights;

(b) can give a description of the principal types of steam boilers used on land and to state the purposes and reasons for which different types of boilers are employed; and from the data and formulae supplied, calculate the safe working pressure for any part of a boiler in accordance with the Indian Boiler Regulations;

(c) can calculate the direct stress, the torsional stress and the bending stress in round bars and shafts and the bending stress in rectangular bars and levers with given load;

(d) understands the working and management of steam boilers, superheaters and economisers;

(e) understands the use and purpose of various valves, cocks, mountings, fittings and other safety devices;

(f) can give a description of and explain the functions of feed pumps, feed injectors, feed regulators, feed water filters and softeners, feed heaters, air heaters, calorifiers, steam accumulators, forced draught, induced draught and automatic draught control devices;

(g) can answer questions on facts relating to combustion, heat and steam and calculate consumption of coal and water and the quantity of steam that may be generated from a given grate area or heating surface under the various systems of draught, in any land boiler, and also calculate the overall efficiency of a boiler plate;

(h) can explain jet and surface condensation, reheating and the working of steam expansively;

(i) can explain the general methods employed in laying foundation for boilers and chimneys and the suitable area and height of chimneys to promote efficient combustion;

(j) can explain the significance of principal appliances in use for the prevention of smoke and the principle on which they work and give description of the principal mechanical stokers, pulverisers, gas, oil and pulverised fuel systems in use;

(k) understands the need for periodical cleaning, the methods used for prevention of scale or other deposits on heating surfaces and the necessity for maintaining a certain pH value in feed water;

(l) can detect defects in boilers and state the means and methods of rectifying them;

(m) understands the precautions to be taken for starting a boiler and economiser from cold or from banked fire condition;

(n) understands the procedure to be adopted in putting an economiser out of commission while the boiler is on steam;

(o) can read and prepare a working sketch and drawing of boilers and boiler mountings or parts thereof; and

(p) can explain the methods adopted for the achievement of fuel economy and the use of various instruments used in a Boiler House.

#### CHAPTER IX

##### Mode of Examinations

33. **Nature of examination.**— Examination for certificate of proficiency as a Boiler Operation Engineer shall be of such nature as to test the practical ability and technical knowledge of the candidates to be in charge of steam generating plants of all types and pressures in land use.

34. **Subjects for examination.**— Examination shall be conducted in the following manner:—

(a) a written examination comprising of one paper on mathematics, one paper on applied mechanics and one paper on boilers and heat engines, set with reference to the syllabus prescribed in rule 32;

(b) a drawing examination to make within a prescribed time a drawing and/or a sketch of a



boiler or part thereof with reference to clause (c) of rule 32; and

(c) an oral examination to answer questions pertaining to Boiler Practice and if required by the examiner to demonstrate in the examination room or in a workshop his ability to carry out the practical aspects of his duties in a workmanlike manner.

**35. Assessment of work.**—A candidate shall secure at least forty-five percent of the marks in each written paper as well as in the oral and drawing examinations; but the aggregate should not be less than fifty-five percent of the total marks in order that he can be awarded a certificate of proficiency under these rules.

**36. Rules for examination room.**—The candidates for certificates of proficiency examination will obey and be bound by the rules and instructions laid down by the Board regarding their conduct while answering the examination.

**37. Fees for examination.**—A candidate for examination for Certificate of Proficiency as a Boiler Operation Engineer shall pay a fee of rupees seventy-five which shall not be refundable:

Provided that when a candidate is unavoidably absent from the examination on the date fixed, the Chairman may allow him to appear without payment of a second fee at the next examination:

Provided further that a candidate who is found ineligible for an examination may apply within one year from the date of the payment for a refund of the fees or he may be allowed to appear without payment of a second fee at any subsequent examination held within one year from the date of payment of the fee, provided that he has become eligible to sit for such subsequent examination.

#### CHAPTER X

##### Grant of Certificates

**38. Grant of certificates of proficiency.**—If a candidate passes the examination, his result will be notified in the Official Gazette and he shall be granted a certificate of proficiency as soon as may be able after such publication.

**39. Form of certificate of proficiency.**—A Certificate of Proficiency as a Boiler Operation Engineer to be issued under these rules shall be in Form B.

**40. Record of certificate of proficiency.**—Counterfoils of all certificates granted under these rules shall be maintained in the office of the Chairman.

**41. Application for endorsement on a certificate.**—An application for endorsement in the Certificate for validity in this territory if the certificate is issued by any other State/Union territory, shall be made in Form A, on payment of a fee of Rupees Ten.

**42. Identification requirement.**—Every certificate granted under these rules shall bear a bust photograph of the holder thereof previously submitted along with his application under rule 25 and his signature and such other particulars as may be required for the purposes of identification.

**43. Grant of duplicate certificate.**—(1) Whenever the holder of a certificate proves to the satisfaction of the Chairman that the certificate granted to him

under these rules has been lost, stolen, destroyed or mutilated without any fault on his part, he shall be granted, on payment of a fee of rupees fifteen, a duplicate certificate to which, by the record so kept as aforesaid, he appears to be entitled, which shall have for all purposes the same validity as the original certificate.

(2) If on enquiry the Chairman is satisfied that any statement made by the applicant for the issue of a duplicate certificate is false, the Chairman may, in consultation with the Board, at its next meeting, at his discretion cancel the certificate or permit the grant as aforesaid of a duplicate certificate either immediately or after such period not exceeding twelve months as the Board may think fit having regard to the circumstances of each case.

**44. Application for duplicate certificate.**—Application for a duplicate certificate shall be made to the Chairman with a declaration before a Gazetted Officer or a Magistrate stating that the certificate granted under these rules has been lost, stolen, destroyed or mutilated as the case may be, without any fault on the part of the applicant.

**45. Invalidity of original certificate.**—On the issue of a duplicate certificate, the original certificate shall cease to be valid and shall, if in the possession of the holder thereof, be returned to the office of the Chairman for cancellation.

**46. Enquiry regarding certificate holders.**—(1) If a District Magistrate or the Chief Inspector of Boilers has reason to believe from any cause whatsoever, that an enquiry should be made into an allegation of incompetence, drunkenness, misconduct or negligence of duty on the part of a Boiler Operation Engineer holding certificate of proficiency under these rules, they shall either themselves make such enquiry or cause it to be made by their subordinate officers.

The District Magistrate may depute a Magistrate of the first class and the Chairman of the Board of Examiners and Inspector of Boilers duly authorised by him to hold such enquiry.

(2) The proceedings shall be held in the presence of the person whose conduct forms the subject of enquiry and he shall have an opportunity of making any statement he may wish to make and of producing any evidence in his defence.

(3) The proceedings of any such enquiry shall be forwarded by the officer conducting the enquiry where he is not the Chairman of the Board, to the Secretary to the Board of Examiners, for consideration of the Board.

**47. Surrender of certificate.**—When an enquiry is being conducted under rule 46, the holder of such certificate shall, on demand by the officer holding the enquiry, surrender forthwith his certificate to the said officer pending the result of such enquiry.

**48. Submission of proceedings before the Board.**—The Secretary to the Board of Examiners shall place the proceedings sent to him under sub-rule (3) of rule 46 before the Board at its next meeting and the Board of Examiners at its discretion may allow the certificate to stand or suspend it for such period as it thinks fit, or may cancel the certificate permanently. The decision of the Board shall be final.

CHAPTER XI  
Penalty

49. Cognizance of offences. — (1) No Court shall take cognizance of any offence under these rules except on complaint by, or with the previous sanction in writing of an Inspector.

(2) No Court below that of a Magistrate of the First Class shall try any offence punishable under these rules.

50. Penalty for offences. — Any person found to be guilty of an offence committed under these rules shall be punishable with a fine which may extend to rupees one hundred.

FORM — A

(See rules 25 and 41)

Application for Examination for Certificate of Proficiency as Boiler Operation Engineer

Division I — Name, etc. of the applicant

- 1. Name (in full)
- 2. Father's name
- 3. Nationality and Religion
- 4. Date of Birth
- 5. Place of Birth
- 6. Permanent Address
- 7. Whether appeared in any previous examination
- 8. If so, when and where
- 9. Height (without shoes) ...mts. ... cms.
- 10. Complexion
- 11. Marks of identification

Division II — Particulars of all Certificates submitted

Number of the certificate	Class of certificate	Where issued	Date of issue	If at any time suspended or cancelled, and if so state by whom	Date of suspension or cancellation	Causes of suspension or cancellation
1	2	3	4	5	6	7

Division III — List of Testimonials and Statements of Service

(The testimonials to be numbered serially corresponding to the numbers given in column 1 below)

Sr. No. of testimonials	Date of the testimonials	Name of person signing the testimonials	Address and designation of factory or workshop where employed	Number, type and heating surface of boilers worked on	Capacity in which employed	Service of Applicant	Date of commencement	Date of termination	Time employed in this service	Not to be filled in by the applicant			
									Year	Month	Days	Initial of verifier	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	

Total service.

Time served for which certificates are produced.

Time served for which no certificates are produced.

Division IV — Declaration to be made by the applicant

I do hereby declare that the statements made in Divisions I, II and III of this Form are correct and true to the best of my knowledge and belief; and that the papers enumerated in Division III and submitted with this Form are true and genuine documents and further that the copies of the documents submitted with this Form are true and correct. I further declare that the statements made in Division II contain a true and correct account of the whole period of my service without exception, and I make this declaration conscientiously believing the same to be true.

Dated at this day of 19  
Signature of the applicant  
Present address.

Signed in the presence of  
Signature ...  
Designation ...

- Note:—
- 1. Every application must be accompanied by a treasury challan for the appropriate amount.
  - 2. Two copies of a recent bust photograph of the applicant (size 2" X 2½") must accompany the application with applicant's signature on the back thereof, duly attested by a Gazetted Officer or the employer.
  - 3. Any person making a false statement for the purpose of admission to the examination renders himself liable to prosecution.
  - 4. Incomplete applications are liable to be rejected.

Division V

(Not to be filled in by the applicant)

Result of Examination held during the month/months of ... 19 ...

Certified that Shri ... has been examined for Certificate of Proficiency as Boiler Operation Engineer and that he has passed/failed \*.

Signature of the members of the Board of Examiners present during examination.

\* Score out which does not apply.

Issue of Certificate of Proficiency as Boiler Operation Engineer when certified to have passed.

Certificate No. ... issued and duplicate recorded.

SECRETARY TO THE BOARD OF EXAMINERS

FORM — B

(See rule 39)

Govt. of Goa, Daman and Diu

Certificate of Proficiency as Boiler Operation Engineer

No. ... of 19 ...

Shri ... aged about ... years, at present residing at ... having satisfied the Board of Examiners appointed under the Goa, Daman and Diu Boiler Operation Engineers' Rules, 1983 of his proficiency to fulfil the duties of a Boiler Operation Engineer is granted under the Boiler Operation Engineers' Rules, this certificate of proficiency authorising him to be in charge of boilers of any type and size provided that the boilers are so situated that no one of them is distant 45 metres from any other of them.

Dated at ... this ... day of ... 19 ...

Secretary, Board of Examiners

Chairman, Board of Examiners

Descriptive Roll

- 1. Date and place of birth ...
- 2. Permanent address ...
- 3. Nationality and religion ...
- 4. Height (without shoes) ...
- 5. Marks of identification ...
- 6. Left thumb impression ...

PHOTO

Endorsements. —

Signature of the Applicant

By order and in the name of the Lieutenant Governor of Goa, Daman and Diu.

S. D. Sadhale, Under Secretary (Industries and Labour).

Panaji, 15th December, 1983.